Environment Canada Environnement Canada

2022993I DEST PVM EXCH COPY 03
TD 171.5.C3 R43
VOL ISS 84-03
REGIONAL PROGRAM REPORT (CANADA. ENVIRONMENTAL PROTECTION SERVICE. PACIFIC REGION)

Environment Canada Environnement Canada

Environmental Protection Service Service de la protection de l'environnement

ENVIRONMENTAL QUALITY OF LAKE LABERGE

(Data from 1977, 1978 and 1980)

Yukon

Regional Program Report No. 84-03

84- 3955 /

Environment Canada
Environmental Protection Service
Pacific Region
Yukon Branch

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by

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April 1984

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ABSTRACT

Water quality (physical, chemical and bacterial) and benthic invertebrate data were obtained from Lake Laberge during 1977, 1978 and 1980 surveys. The influence of the Yukon River and the human settlements near the lake are discussed.

The results have indicated that the water quality of the upper end of Lake Laberge has been affected by the City of Whitehorse sewage lagoon and to a lesser extent by the settlement near Deep Creek, suggested by the level of coliform bacteria.

RESUME

Des données physico-chimiques et bactériologiques de l'eau du lac Laberge de même que des résultats de la faune benthique ont été obtenues durant les études 1977, 1978 et 1980. L'influence du fleuve Yukon et des habitations humaines près du lac y est discutée.

Les résultats ont indiqués que la qualité de l'eau du lac Laberge a été affectée par le système de traitement des eaux usées de la ville de Whitehorse et par les résidents près de Deep Creek dans une moindre mesure, suggeré par le nineau de bactéries coliformes.

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1 INTRODUCTION

During the summers of 1977, 1978 and 1980 the Environmental Protection Service (EPS), Yukon Branch undertook the collection of water quality information from Lake Laberge. The purpose was to provide data on relevant parameters before and after Whitehorse sewage lagoon installation and to determine the contribution of cottages along the lakeshore to bacterial levels in the water.

The purpose of this report is to compile the information gathered and provide a summary of conditions for the various parameters in relation to water quality standards. The information recorded will be of value in assessing the effectiveness of future upgraded sewage treatment facilities in Whitehorse and the influence on receiving water quality.

During the period of information collection, there were changes in laboratory procedures, some new sampling stations were added and some sampling stations deleted which has made comparison of data difficult.

2 STUDY AREA

Lake Laberge is located at 61° 11' N latitute and 135° 12' W longitude in the central southern part of the Yukon Territory (Figure 1). The lake is a part of the Yukon River hydrographic system and is situated about 30 km downstream from the city of Whitehorse sewage treatment plant discharge. The lake is 48 km long. The upper 14 km was sampled.

The sampling stations are arranged in transects across the lake at varying distances downstream from the confluence of the Yukon River with the lake. This allows data to be collected and related to human activity upstream on the Yukon River at Whitehorse or to human settlement at Deep Creek and Jackfish Bay on Lake Laberge. Figure 2 shows the location of these sampling stations and the periods which they were sampled. A bathymetric map of the study area is presented on Figure 3.

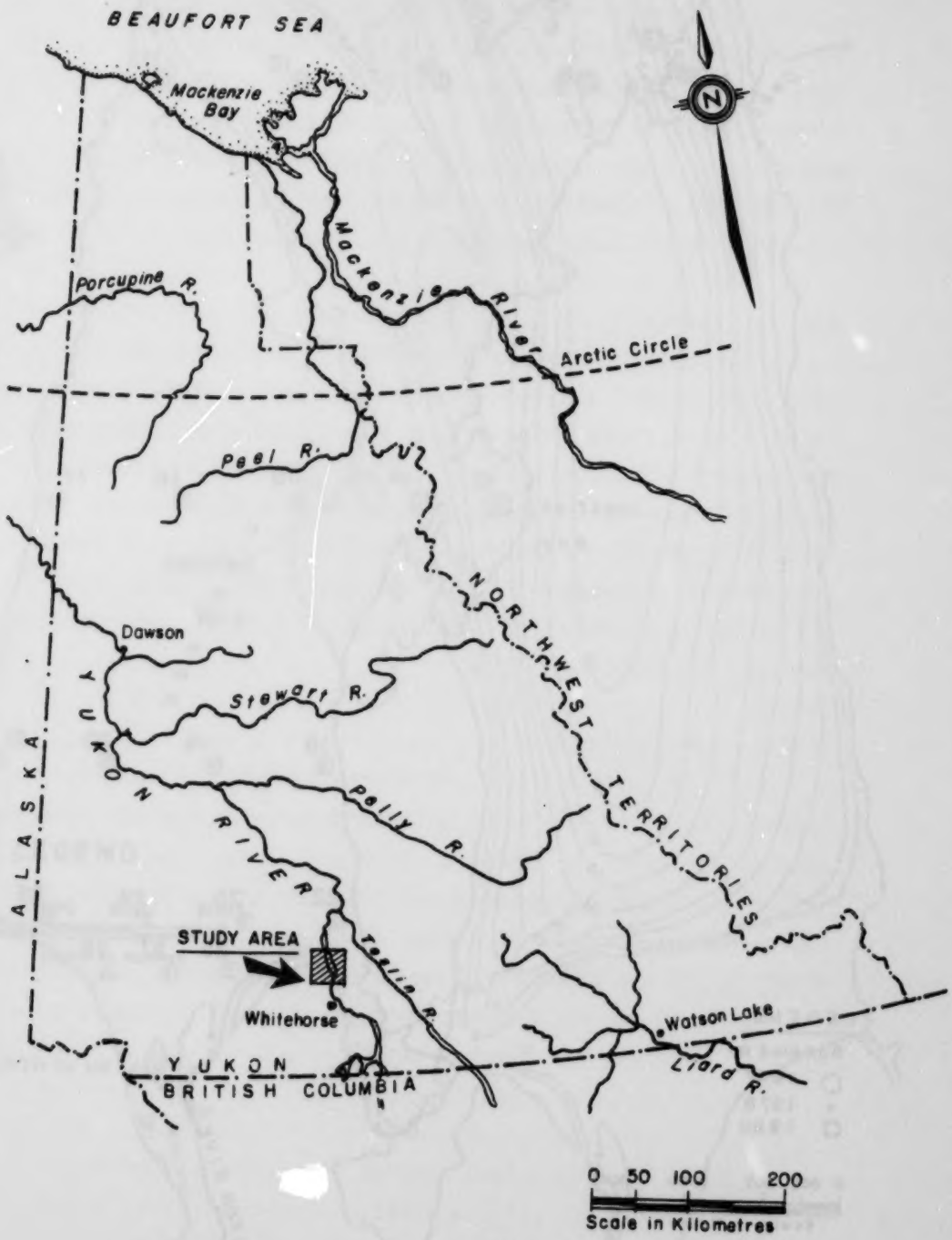

FIGURE 1 LOCATION OF LAKE LABERGE STUDY AREA

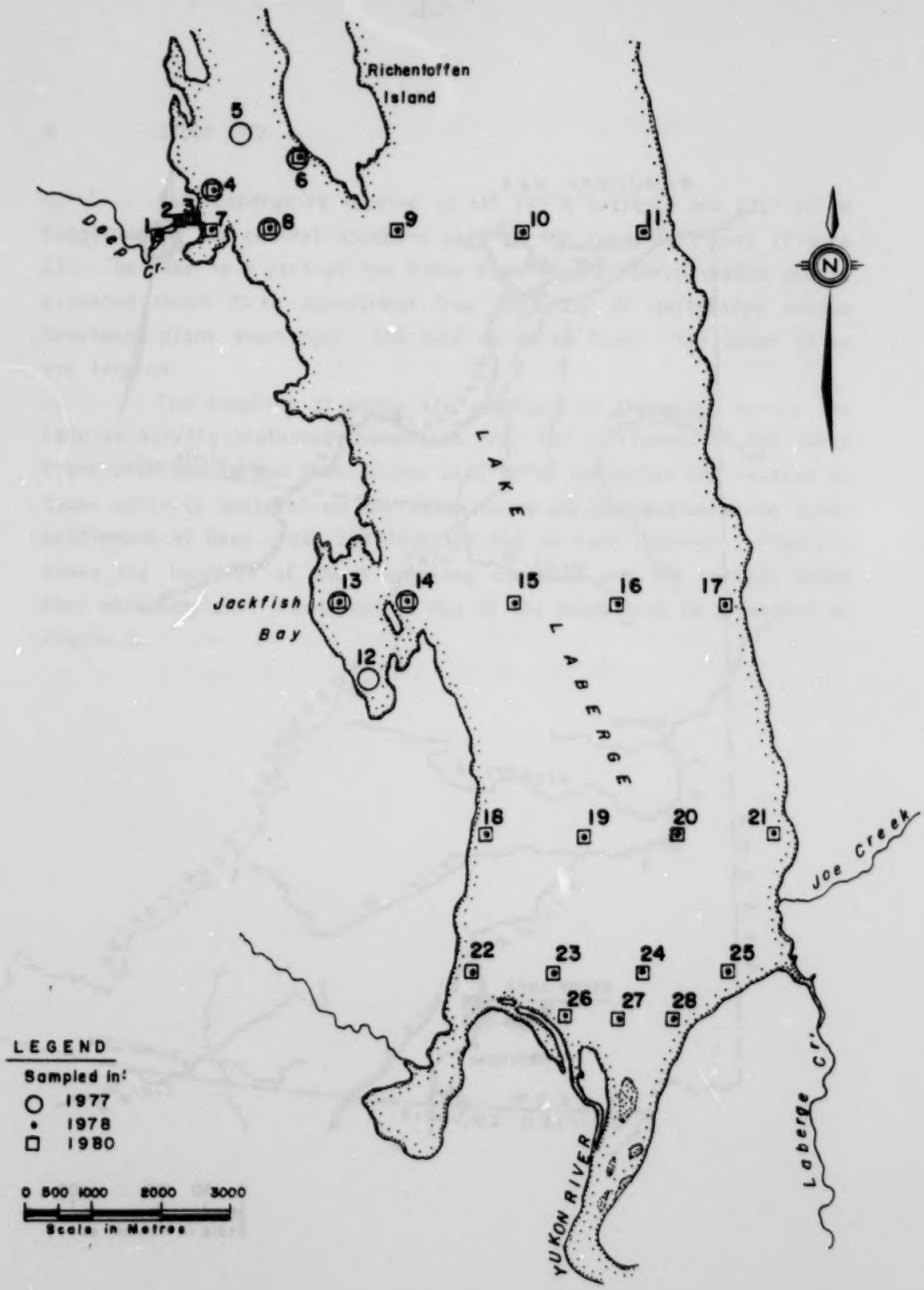

FIGURE 2 STATION LOCATIONS FOR LAKE LABERGE, 1977, 1978 AND 1980

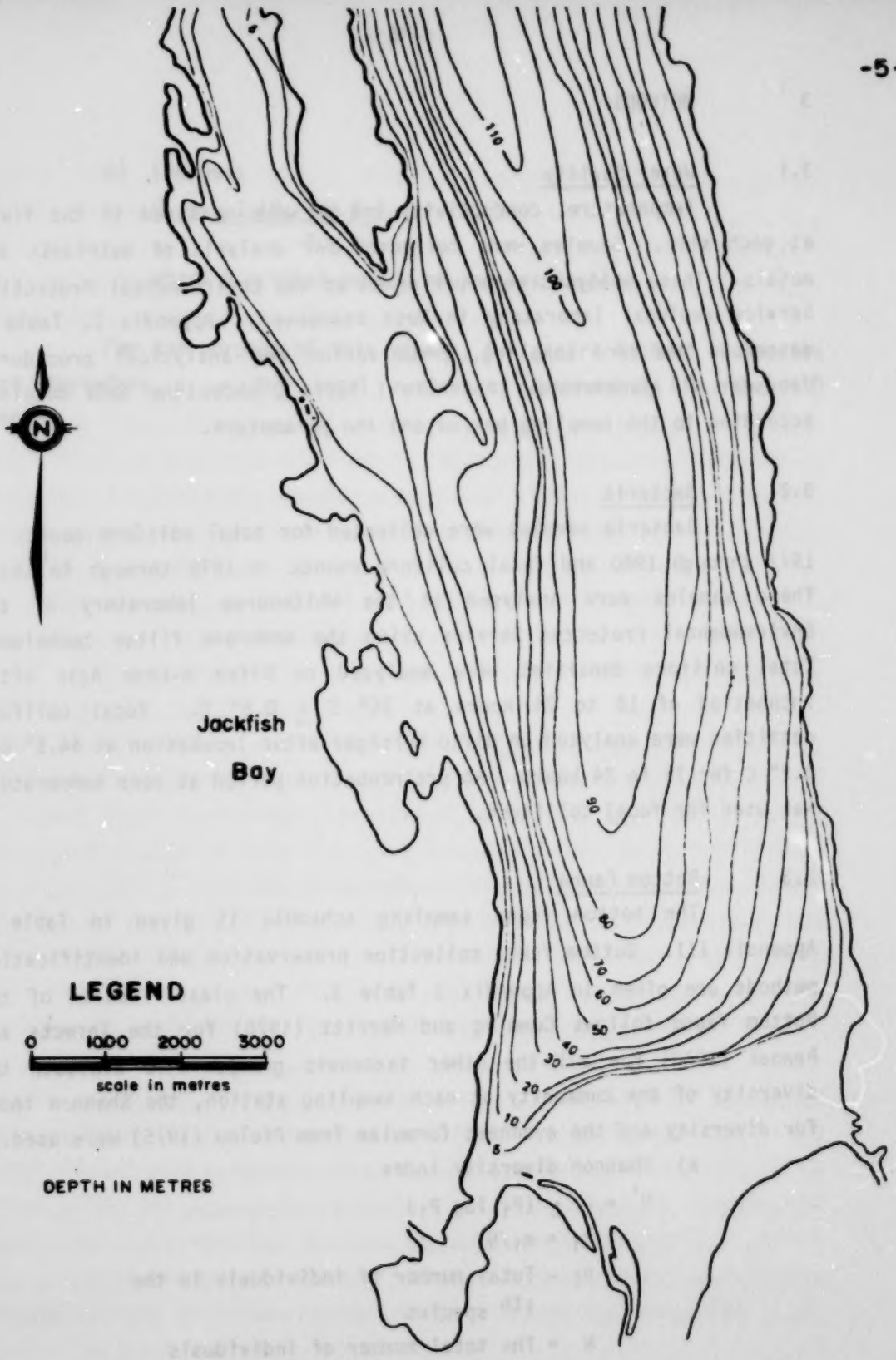

FIGURE 3 BATHYMETRIC MAP OF THE LAKE LABERGE STUDY AREA

3 METHODS

3.1 Water Quality

Temperature, conductivity and pH were measured in the field at each site. Samples were collected for analysis of nutrients and metals. These analyses were performed at the Environmental Protection Service regional laboratory in West Vancouver. Appendix I, Table 1 describes standard sampling, preservation and analytical procedures used for all parameters. Appendix I Table 2 shows the data obtained according to the sampling period and the parameters.

3.2 Bacteria

Bacteria samples were collected for total coliform counts in 1977 through 1980 and fecal coliform counts in 1978 through to 1980. These samples were analysed at the Whitehorse laboratory of the Environmental Protecton Service using the membrane filter technique. Total coliform densities were analysed on Difco M-Endo Agar after incubation of 18 to 24 hours at 35° C $\pm$ 0.5° C. Fecal coliform densities were analysed on Difco M-FcAgar after incubation at 44.5° C $\pm$ 0.2° C for 18 to 24 hours. No preincubation period at room temperature was used for fecal coliforms.

3.3 Bottom Fauna

The bottom fauna sampling schedule is given in Table 1 Appendix III. Bottom fauna collection preservation and identification methods are given in Appendix I Table 3. The classification of the bottom fauna follows Cumming and Merritt (1978) for the insects and Pennak (1978) for all the other taxonomic groups. To evaluate the diversity of the community at each sampling station, the Shannon index for diversity and the evenness formulae from Pielou (1975) were used.

a) Shannon diversity index

$$H' = - \sum (P_i \log P_i)$$

$P_i = n_i/N$

n_i - Total number of individuals in the i^{th} species

N = The total number of individuals sampled

b) Evenness

$$J' = \frac{- \Sigma (P_i \log P_i)}{\log S}$$

where S = total number of species sampled

For the purpose of this report, S = genera instead of species and therefore n_i = the total number of individuals in the i^{th} genera.

4 RESULTS

4.1 Water Quality

The water quality data obtained in this study are presented in Appendix II. Each survey is presented on a separate table (Table 1-9).

4.1.1 Ammonia, Nitrite, Nitrate. The nitrogen compound ammonia is abundant only in deoxygenated water and reducing conditions. It will occur then generally in polluted areas and the hypolimnion of eutrophic lakes. The nitrites are generally absent from the surface water unless it is polluted. The nitrates are the usual form of assimilation of nitrogen by plants and are provided by aerobic decomposition and by the blue-green algae and bacteria fixation. These compounds are distributed through the lake by the thermal turn-over.

The maximum recommended levels of nitrogen-compounds for drinking water is 0.5 mg/l for ammonia, 10 mg/l for nitrates and 1 mg/l for nitrites (Working Group, 1977, EPA, 1973). In Lake Laberge there were no values for the above nitrogen compounds which were above the recommended guideline and usually they were near or below the detecton limit. The nitrogen compound range from <0.005 mg/l to 0.032 mg/l for ammonia, <0.01 mg/l to 0.038 mg/l for nitrates and always <0.005 mg/l for nitrites.

4.1.2 Phosphate. Phosphate is usually a limiting factor for the growth of algae (Wetzel, 1975). The phosphate comes from various sources, such as degradation of rocks, and organic matter, from pollution by detergents, fertilizers or organic pollution. Phosphorus is retained in the sediments by the oxygenated water which precipitates the element (Wetzel, 1975). The level recommended (0.020 mg/l) is based on limnological concerns to prevent eutrophication of a lake rather than health hazards (Ontario, 1978). Only one station in July 8-11, 1980, shows a level of 0.182 which was above the recommended

level. That station is #20 at 25 m depth which might be caused by the bottom decomposition in spite of the DO level which is 10.16 mg/l, and 90 % saturation. The sample might be taken close to the sediment water interface, the suspended solid (NFR) at that station was high, perhaps due to disturbance by the sampler.

4.1.3 Total Organic Carbon. Total organic carbon (TOC) is a technique for estimating the organic content in the water. A high level of TOC might indicate organic pollution. The Ontario Ministry of Environment (1978) has recommended a maximum level of 5.0 mg/l for the public water supply. In Lake Laberge, there were no levels that exceeded this limit. The range of the values are <1.0 mg/l to 5.0 mg/l.

4.1.4 Colour and Turbidity. Colour is the resulting effect of dissolved compounds on the absorption of light. Compounds such as hydroxy carboxylic acid, humic acids, iron, and manganese are the most important contributors. The recommended maximum of 75 platinum-cobalt colour units is far greater than what is found in Lake Laberge during the survey in 1980.

Turbidity is the measurement of transparency of the water and is affected by plankton and sediment particles of different sizes. It reflects the amount of suspended solids in the water which can reduce the amount of light available for the biological processes. For Lake Laberge, the turbidity was low, $\leq$ 5 FTU which indicates a clear water.

4.1.5 Chloride, Sulfate. The data obtained in 1980 for chlorides show concentrations mostly below the detection limit of 0.5 mg/l. The level for drinking water should not exceed 250 mg/l. According to Wetzel 1975, the mean concentration of chloride in natural fresh water is 8.3 mg/l which is above the concentration found in Lake Laberge.

The recommended level of 250 mg/l (EPA, 1973) is not exceeded in Lake Laberge which has values between 4 and 10 mg/l with some peaks of 39.6 mg/l and 46.5 mg/l in Deep Creek.

4.1.6 pH. In lakes with good buffering capacity, the pH of natural water varies between 7-8. The pH of Lake Laberge varied between 7.5 and 8.2 through the study, which is fairly constant, and very acceptable.

4.1.7 Conductivity, Alkalinity and Hardness. The conductivity varies from 56 to 85 umhos/cm in most stations except for stations 1,2 and 3 which show values ranging from 100-370 umhos/cm. This is attributed to the minerals carried by Deep Creek, which also shows a hardness of 70 to 230 mg/l as $CaCO_3$ compared to the range of the stations on the lake from 36-64 mg/l as $CaCO_3$. The alkalinity varies from 35 to 50 mg/l as $CaCO_3$. The alkalinity shows a good buffering capacity which explains why the pH is maintained in a fairly narrow range. There are no recommended levels for conductivity and alkalinity for drinking water (EPA, 1973).

4.1.8 Non-Filterable Residue - NFR. The NFR is the equivalent of the more familiar suspended solids. The results of the study show a very low level of suspended solids, always near or below the detection limit. There is only one station at which the level was higher (Station 20-25m, 139 mg/l). According to the level of phosphate found at that station, it is suggested that the sample was close to the bottom surface where a lot of solids remain in suspension due to the slow water movements or that they had been disturbed during sampling activity. There is no correlation with the number of coliforms at that area.

4.1.9 Filterable Residue - FR. This parameter is the equivalent of the total dissolved solids. It shows the degree of mineralization of the water. The range of values for the filterable residue is 46-75 mg/l, with a peak for stations 1,2 and 3, (88-305 mg/l) which correlates with the hardness, alkalinity and conductivity in the water. It is proposed by EPA (1973) that the filterable residue not exceed 500 mg/l, but it was also observed that no obvious effect results from an excess of dissolved solids.

4.1.10 Oxygen. The percentage saturation of oxygen in Lake Laberge ranges from 85-120% which is satisfactory. A good level of oxygen is an indicator that there is no excessive quantity of oxygen demanding material, helps to transform ammonia to nitrate, to precipitate the excess phosphates, iron, and manganese.

4.1.11 Temperature. There was no thermal stratification found in Lake Laberge during the three year survey. This might be caused by the high surface exposed to the prevailing wind that blows south to north, which is the same orientation of the lake and the short retention time of the water in the lake (summer average, 0.52 years, C.H. Pharo, personal communication). There was some increase in temperature near the tributaries of the lake (Yukon River, Deep Creek) as well as shallow areas such as Jackfish Bay.

4.1.12 Metals. All metals except aluminum, manganese and iron were below the detection limit or under the maximum recommended level (EPA, 1973) for any station at all depths and sampling dates. In the case of aluminum, the level should not exceed 0.1 mg/l of ionized or potentially ionizable aluminum (Ontario 1978) because at high levels it is deleterious to growth and survival of fish. The level has been exceeded several times (Table I) but it should be mentioned that with a pH between 7.5 and 8.2 it is rather probable that the aluminum would be unionized (Kelso, personal communication). It is clear, by the distribution of elevated levels, that the Yukon River is the source of the aluminum. The Yukon River study by Bethell (1981) shows that stations near the lagoon outfall and at the junction of the Takhini and Yukon rivers exceed the recommended levels by up to ten times.

Manganese levels exceeded the levels recommended for drinking water (0.05 mg/l set for alsthetic reasons) at Stations 6 and 13 on July 10-12, 1978; all stations except Station 2 on August 22-25, 1978; and Stations 6,7 and 8 on July 8-11, 1980. None of these levels exceeded the recommended level of (1.0 mg/l) for aquatic life.

TABLE 1 ALUMINUM CONCENTRATIONS IN LAKE LABERGE EXCEEDING RECOMMENDED LEVELS
(Aluminum (Al) recommended level for aquatic life not to exceed 0.1 mg/l) (Ontario Ministry of Environment 1978)

July 10-12/78			Aug. 22-25/78			July 08-11/80			Aug. 05-07/80		
#	D (m)	Al (mg/l)	#	D (m)	Al (mg/l)	#	D (m)	Al (mg/l)	#	D (m)	Al (mg/l)
17	0	0.29	3	0	0.22	11	1	0.105	15	0	0.106
	3	0.32									
	12	0.20	28	0	0.22	13	1	0.146	16	0	0.129
										1	0.230
19	0	0.24				19	0	0.109			
							0	0.109	17	0	0.190
20	0	0.28									0.211
						20	25	0.298			
21	3	0.21							18	1	0.113
						21	0	0.153			
24	0	0.24					1	0.113	20	0	0.150
	3	0.23								1	0.164
						23	0	0.466			
25	0	0.23					1	0.434	21	0	0.188
										1	0.198
26	0	0.36				24	0	0.568			
							1	0.586	23	0	0.204
27	0	0.37								1	0.225
						25	0	0.509			
28	0	0.33					1	0.491	24	0	0.247
										1	0.229
						26	0	0.631			
									25	0	0.194
						27	0	0.682		1	0.206
						28	0	0.633	26	0	0.242
									27	0	0.213
									28	0	0.262

# = Station Number
D = Depth (m)
Al = Concentration of Aluminum (mg/l)

Iron does not exceed the level recommended for aquatic life (1.0 mg/l) although the recommended level for drinking water of 0.3 mg/l, set for aesthetic and taste reasons, is exceeded at Stations 24 and 28, July 10-12, 1978; Stations 23-28, July 8-11, 1980.

4.2 Bacteria

The coliform bacteria are used as indicators of sewage pollution. Escherichia coli is a normal inhabitant of the human digestive system. Their presence suggests potential for contamination by enteric bacteria such as Salmonella sp. and Shigella sp. which are agents of intestinal disease such as dysentery and typhoid fever. The total coliform count is an indicator of sanitary conditions but is not a proper measurement of fecal contamination because coliform bacteria are wide spread in the environment and not specific to fecal material. Some reports indicate that a sharp increase of the frequency of Salmonella sp. detection occurs when fecal coliforms are above 200/100 ml (EPA, 1972). The criteria recommended by the Working Group on Water Quality Objectives (1977) for the Yukon is 100 total coliforms per 100 ml (100/100 ml) as acceptable limits and 1000/100 ml as a maximum limit before treatment. The acceptable limit for fecal coliforms is 10/100 ml and a maximum of 100/100 ml for public water supply before treatment. Some of the data shows results exceeding the maximum limits for total coliforms in August 22-25, 1978, July 8-11, 1980 and August 5-8, 1980 (See Table II and III for more details). On August 29, 1977, the level of total coliform is below the acceptable limit while all the other values are over 100 total coliforms/100 ml. The maximum limits of 100 fecal coliforms/100 ml has been reached at some stations at each sampling period. Every period of time where that parameter has been considered shows values exceeding the acceptable limit for some stations. Figures 3-8 indicate the abundance and distribution of the total coliforms and Figures 9-14 show the fecal coliform distribution and abundance. Those distributions are not necessarily surface

TABLE II TOTAL COLIFORMS (number of bacteria/100 ml) (Summarized from Appendix II Table 1-9)

STATION:	1	2	3	4	4	5	5	5	6	6	6	7	7	8	8	8	9	9	9	10	10	10
DEPTH(m) / DATE	0	0	0	0	2	0	2	8	0	2	14	0	3	0	2	11	0	3	12	0	3	12
77 06 05	-	-	-	-	295	0	4	1	0	9	5	-	-	0	1	0	-	-	-	-	-	-
77 08 29	-	-	-	1	10	0	2	0	0	0	2	-	-	1	0	0	-	-	-	-	-	-
78 06 19	20	0	10	0	0	-	-	-	0	0	-	0	0	0	0	0	0	0	0	0	2	0
78 07 10	530	320	0	1	0	-	-	-	1	2	-	0	0	0	0	-	0	0	0	0	0	0
78 07 31	200	100	300	0	0	-	-	-	0	0	-	0	0	0	0	0	0	0	0	-	-	-
78 08 22	40	0	0	0	0	-	-	-	0	0	-	0	0	0	0	1	0	0	0	6	0	0
80 07 08	-	-	-	0	0	-	-	-	0	2	1	2	0	0	0	0	0	0	0	5	5	0
80 08 05	-	-	-	5	6	-	-	-	0	0	1	0	0	0	0	0	0	0	1	0	0	0

TABLE III FECAL COLIFORMS (number of bacteria/100 ml) (Summarized from Appendix II Table 1-9)

STATION:	1	2	3	4	4	5	5	5	6	6	6	7	7	8	8	8	9	9	9	10	10	10
DEPTH(m) / DATE	0	0	0	0	2	0	2	8	0	2	14	0	3	0	2	11	0	3	12	0	3	12
77 06 05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77 08 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78 06 19	0	0	20	0	0	-	-	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
78 07 10	-	42	19	1	0	-	-	-	0	0	-	0	0	0	0	-	0	0	0	0	0	0
78 07 31	20	88	90	0	0	-	-	-	6	0	-	0	0	0	0	0	0	0	0	-	-	-
78 08 22	41	7	0	0	0	-	-	-	0	0	-	0	0	0	0	0	0	0	0	0	0	0
80 07 08	-	-	-	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0
80 08 05	18	26	48	5	0	-	-	-	0	0	0	1	0	0	0	0	0	0	0	0	0	0

TABLE II TOTAL COLIFORMS (number of bacteria/100 ml) (Summarized from Appendix II Table 1-9) (Continued)

STATION:	11	11	11	12	12	13	13	14	14	15	15	15	16	16	16	17	17	17	18	18	18
DEPTH(m) / DATE	0	3	9	0	3	0	3	0	3	0	3	12	0	3	12	0	3	12	0	3	12
77 06 05	-	-	-	0	1	0	6	0	2	-	-	-	-	-	-	-	-	-	-	-	-
77 08 29	-	-	-	0	3	0	0	1	2	-	-	-	-	-	-	-	-	-	-	-	-
78 06 19	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	30	70	50	0	4	0
78 07 10	200	1000	-	-	-	0	3	0	3	2	2	5	1	57	6	0	220	30	-	2	2
78 07 31	192	372	-	-	-	0	0	0	0	0	0	3	0	2	4	40	500	30	0	0	3
78 08 22	0	0	-	-	-	3	0	2	0	38	39	49	3	39	8	33	316	5110	0	0	4
*80 07 08	5	2	3	-	-	2	0	7	5	2	0	0	4	5	1	13	61	24	8	11	-
*80 08 05	0	0	0	-	-	0	0	0	0	0	0	2	0	61	1	1	9	15	4	2	-

TABLE III FECAL COLIFORMS (number of bacteria/100 ml) (Summarized from Appendix II Table 1-9) (Continued)

STATION:	11	11	11	12	12	13	13	14	14	15	15	15	16	16	16	17	17	17	18	18	18
DEPTH(m) / DATE	0	3	9	0	3	0	3	0	3	0	3	12	0	3	12	0	3	12	0	3	12
77 06 05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77 08 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78 06 19	0	0	-	-	-	0	0	0	0	0	0	0	0	0	0	0	18	0	0	0	0
78 07 10	2	2	-	-	-	0	0	0	0	0	0	0	0	0	0	1	5	0	-	0	0
78 07 31	4	6	-	-	-	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
78 08 22	0	0	-	-	-	0	0	0	0	0	0	0	1	0	0	2	6	10	0	0	0
*80 07 08	0	0	50	-	-	2	2	4	4	0	0	0	0	0	0	2	4	2	2	0	-
*80 08 05	0	1	0	-	-	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	-

* Station 15: bottom samples are not exactly at same depth as indicated, but close to it.

TABLE II TOTAL COLIFORMS (number of bacteria/100 ml) (Summarized from Appendix II Table 1-9) (Continued)

STATION:	19	19	19	20	20	20	21	21	21	22	22	22	23	23	24	24	25	25	26	27	28
DEPTH(m) / DATE	0	3	12	0	3	12	0	3	12	0	1	25	0	1	0	3	0	1	0	0	0
77 06 05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77 08 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78 06 19	0	0	4	210	250	40	140	60	-	0	-	-	-	-	-	-	-	-	-	-	-
78 07 10	2	9	-	0	0	0	110	240	-	0	-	-	-	-	-	-	-	-	-	-	-
78 07 31	0	1	34	0	0	120	0	385	-	14	-	-	38	-	323	275	140	-	73	94	304
78 08 22	63	31	8	119	264	90	300	1400	-	4	-	-	306	-	1720	1360	1900	-	1340	1660	2200
*80 07 08	60	7	1	84	70	1	96	102	12	8	0	0	18	22	10	42	38	56	6	6	30
*80 08 05	2	0	0	11	16	3	10	72	11	0	0	6	76	50	100	114	106	69	†TNTC	123	†TNTC

TABLE III FECAL COLIFORMS (number of bacteria/100 ml) (Summarized from Appendix II Table 1-9) (Continued)

STATION:	19	19	19	20	20	20	21	21	21	22	22	22	23	23	24	24	25	25	26	27	28
DEPTH(m) / DATE	0	3	12	0	3	12	0	3	12	0	1	25	0	1	0	3	0	1	0	0	0
77 06 05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
77 08 29	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
78 06 19	0	0	0	36	30	2	14	16	-	0	-	-	58	-	74	-	94	-	66	36	156
78 07 10	0	0	-	0	0	0	1	2	-	0	-	-	1	-	5	80	-	-	88	119	116
78 07 31	1	0	4	0	0	0	0	4	-	1	-	-	1	-	72	31	15	-	100	0	97
78 08 22	0	0	1	3	7	3	6	7	-	0	-	-	20	-	69	80	38	-	220	11	180
*80 07 08	8	4	0	14	2	2	10	0	0	0	0	0	20	16	19	40	29	63	38	26	36
*80 08 05	0	0	0	3	2	0	1	0	0	0	0	0	1	10	21	30	8	8	33	26	26

* Stations 19, 20, 21 and 24: bottom samples are not exactly at same depth as indicated, but close to it.

† TNTC: Too Numerous To Count

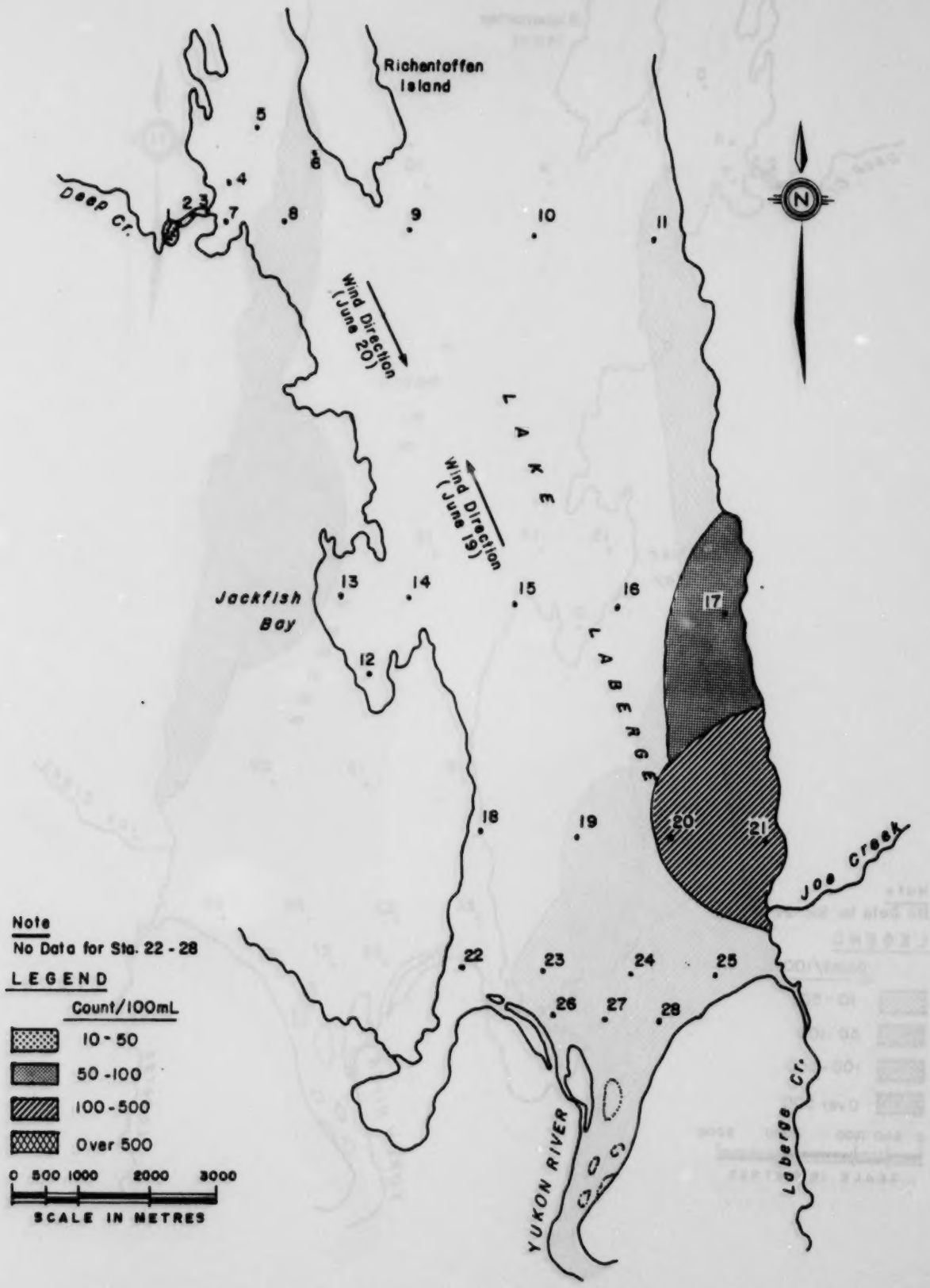

FIGURE 4 TOTAL COLIFORMS - June 19-20, 1978

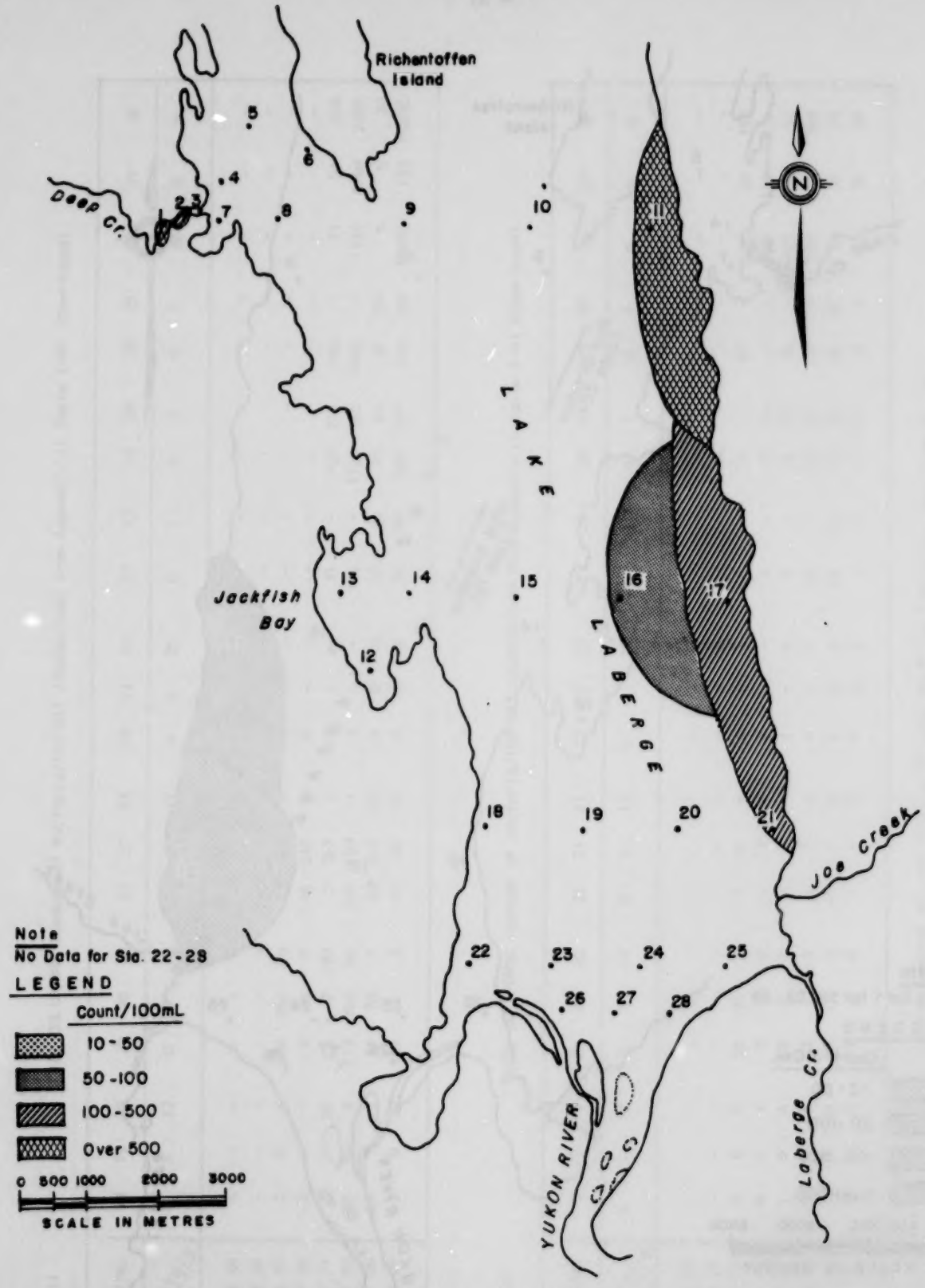

FIGURE 5 TOTAL COLIFORMS - July 10-12, 1978

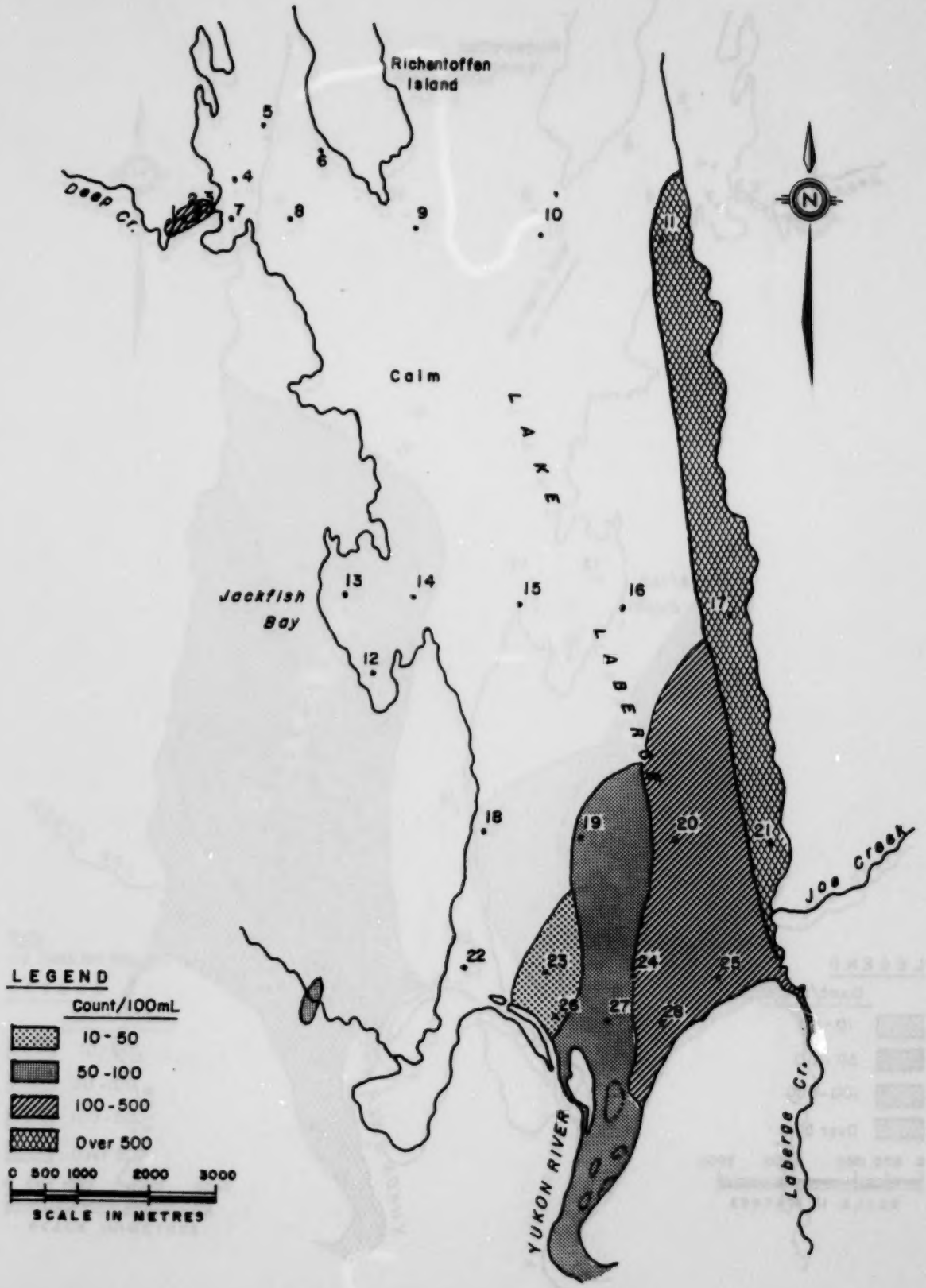

FIGURE 6 TOTAL COLIFORMS - July 31, 1978

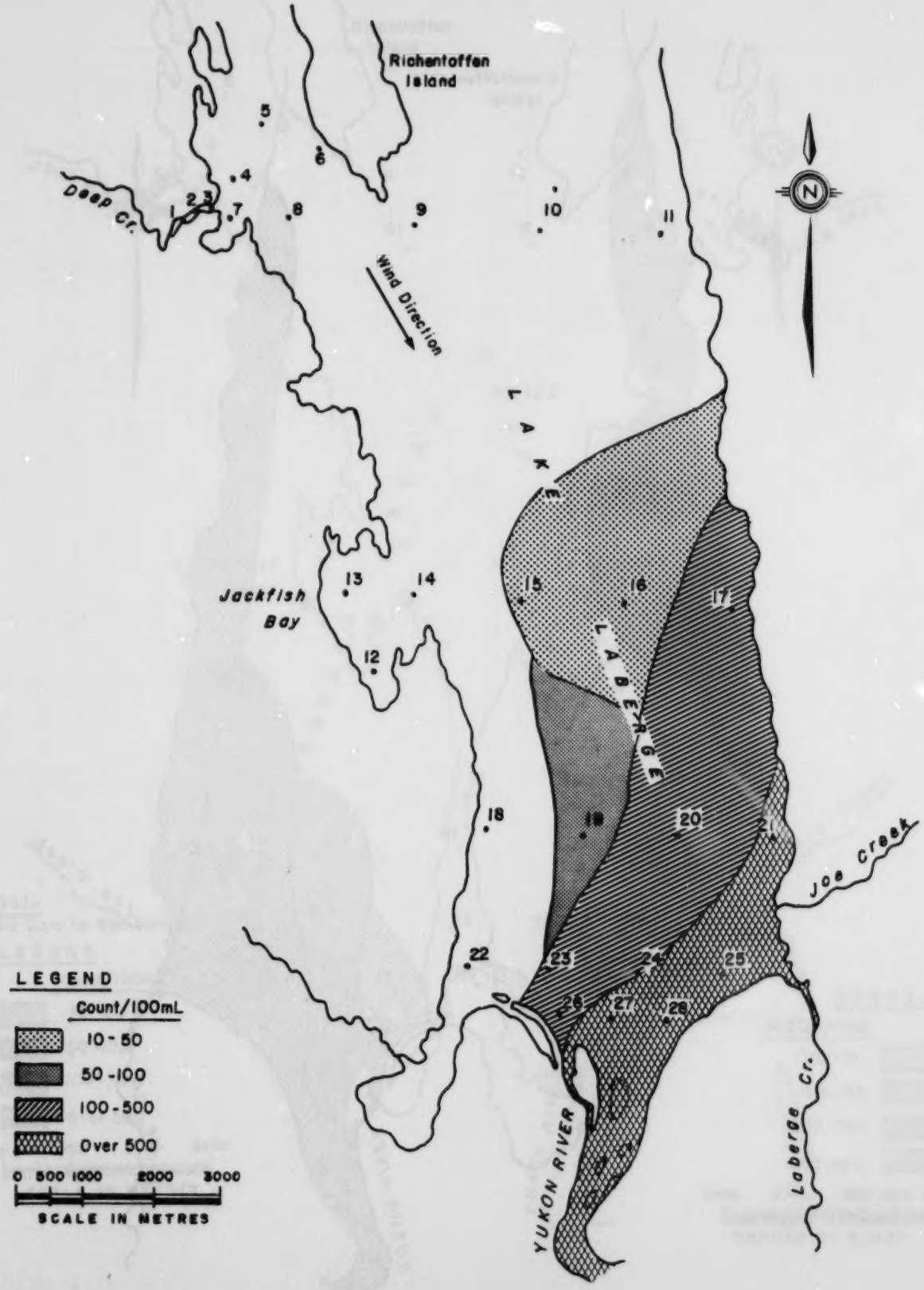

FIGURE 7 TOTAL COLIFORMS— August 22, 1978

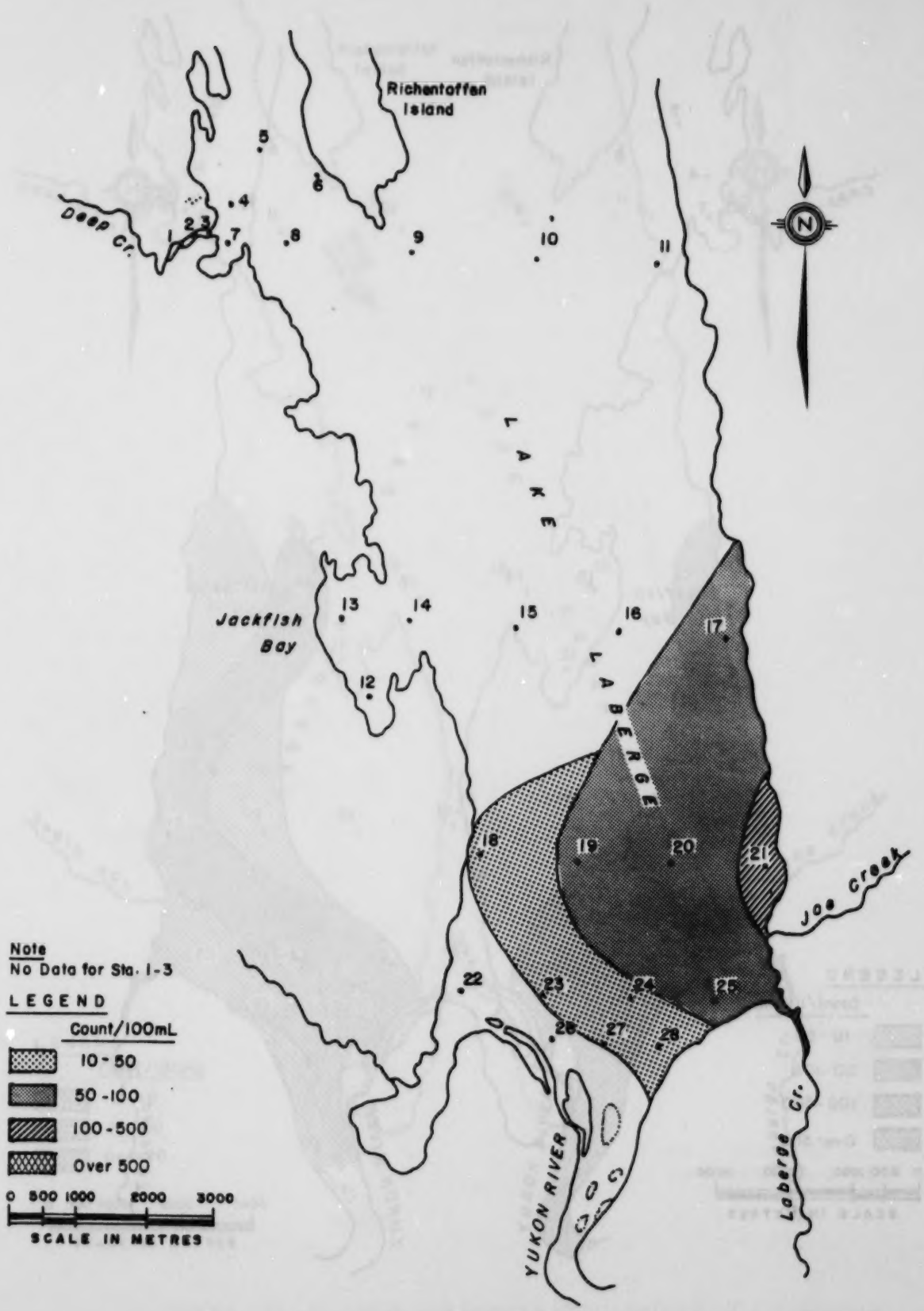

FIGURE 8 TOTAL COLIFORMS- July 8 - 11, 1980

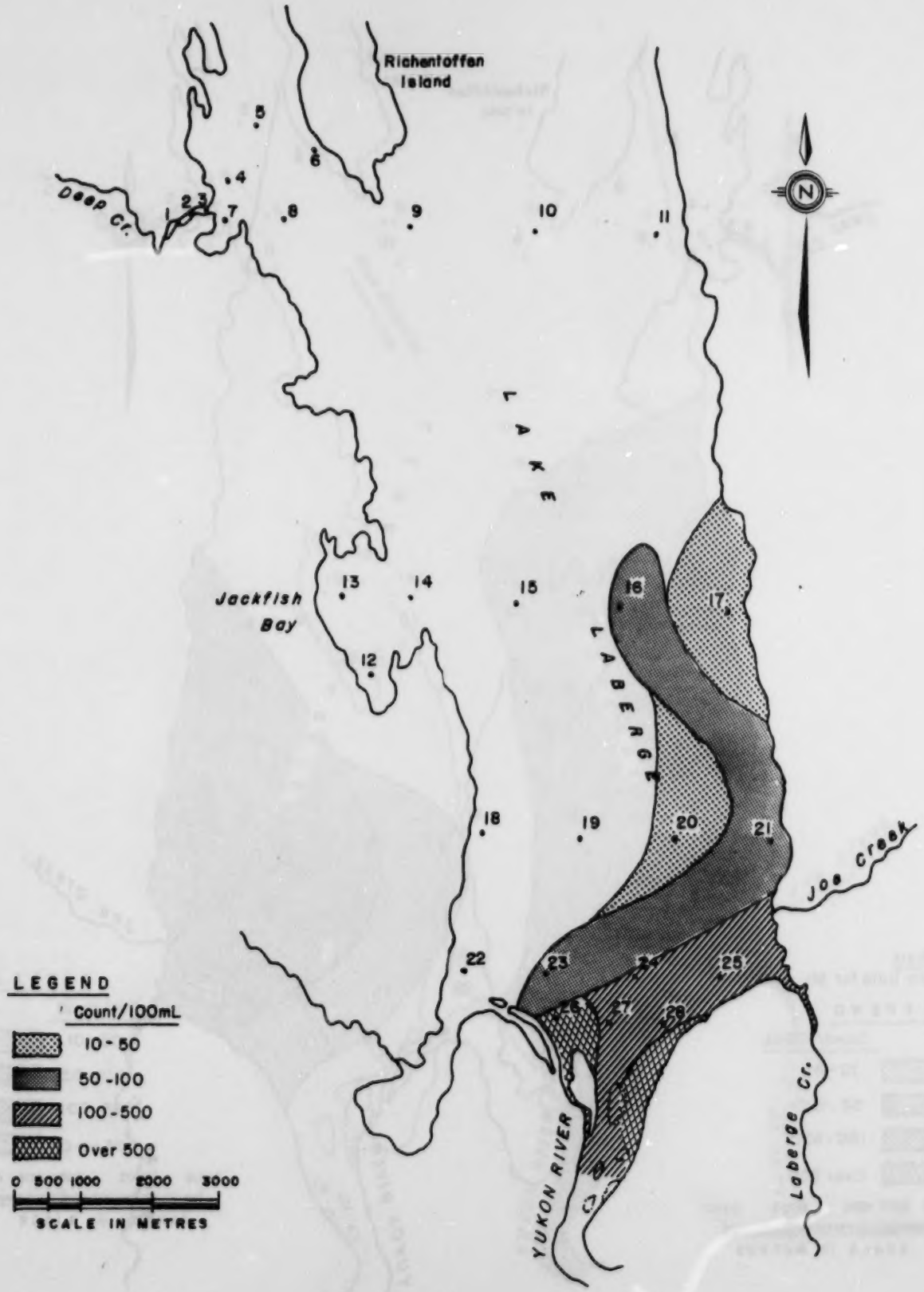

FIGURE 9 TOTAL COLIFORMS - August 5-7, 1980

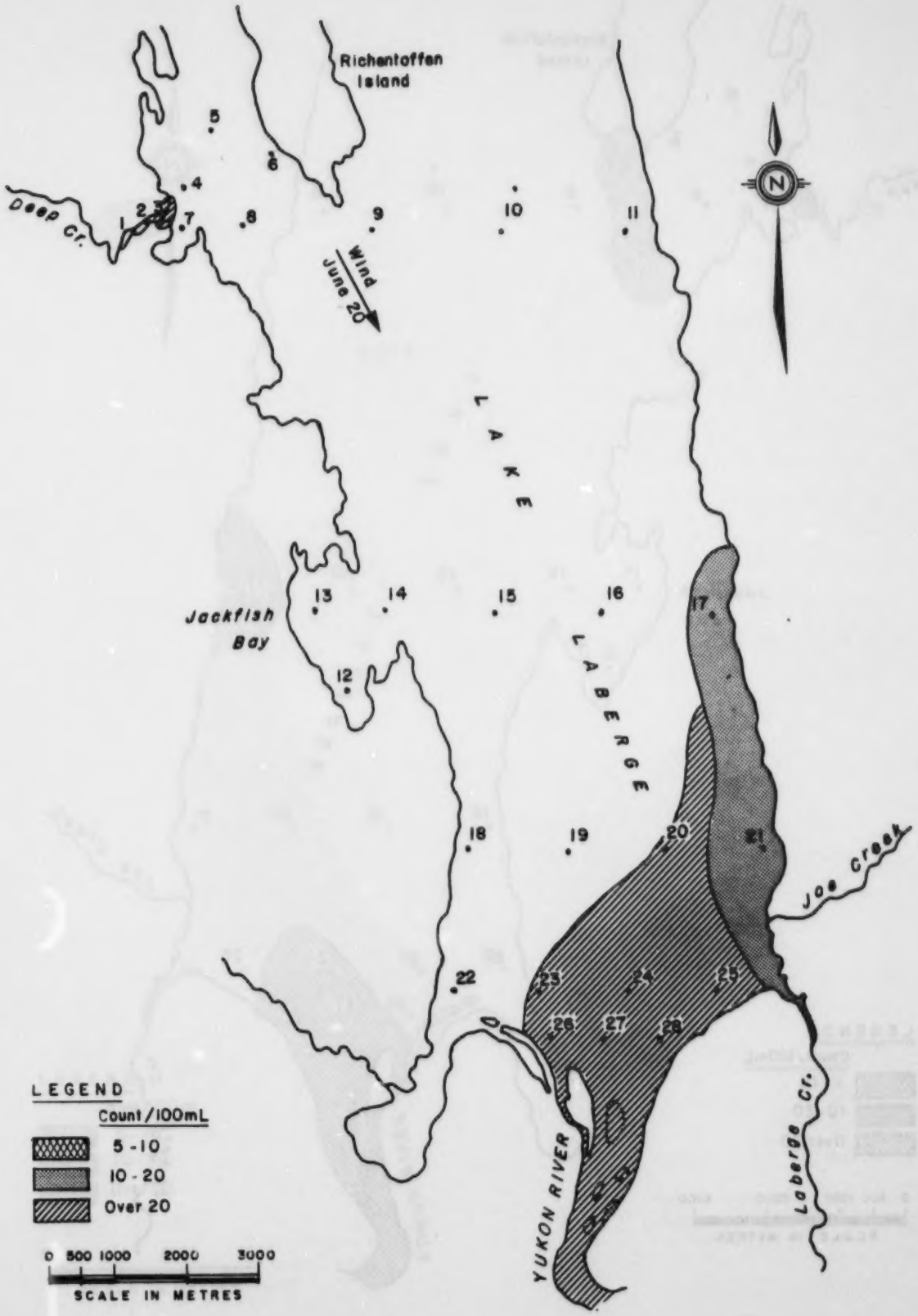

FIGURE 10 FECAL COLIFORMS - June 19-20, 1978

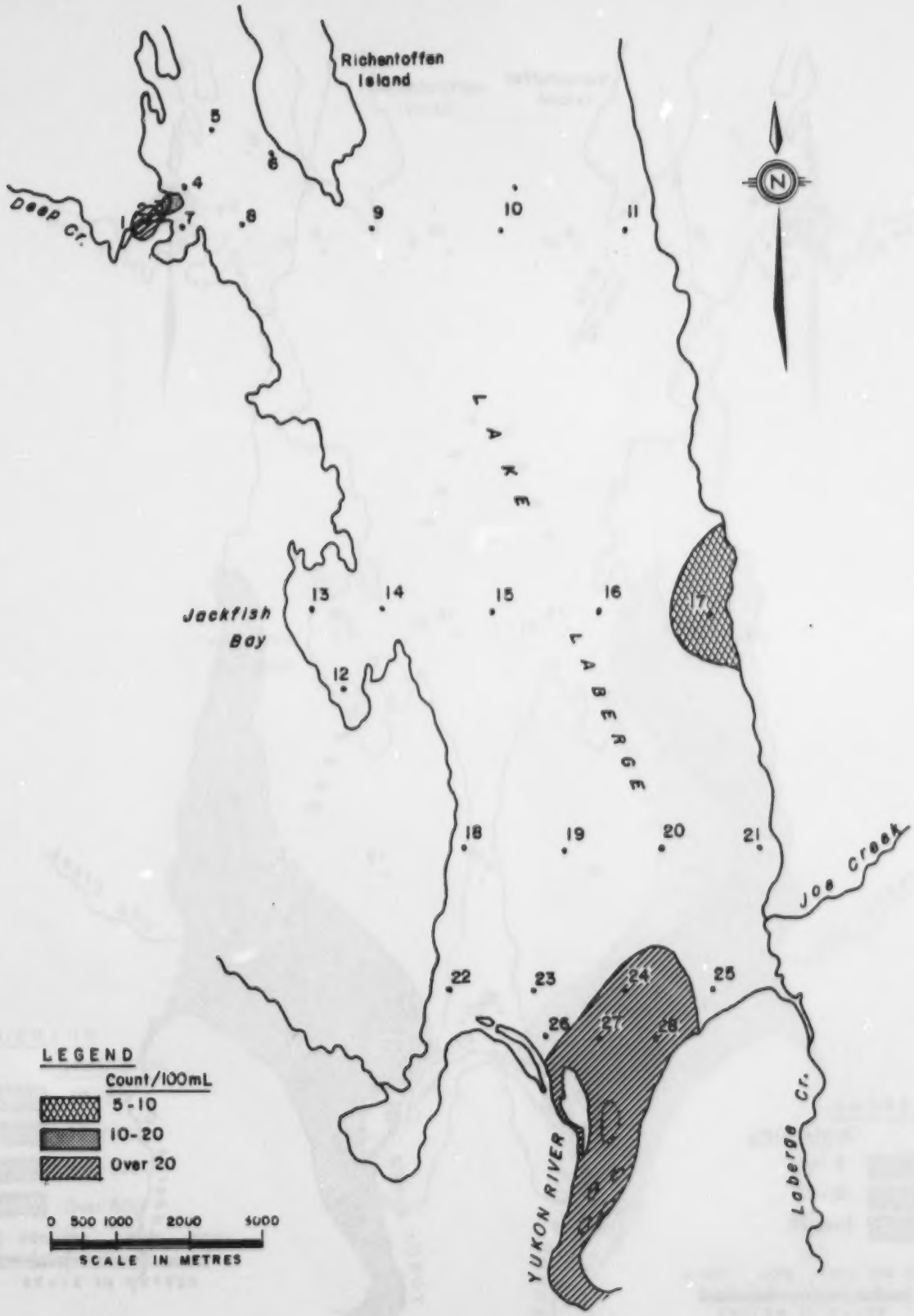

FIGURE 11 FECAL COLIFORMS - July 10-12, 1978

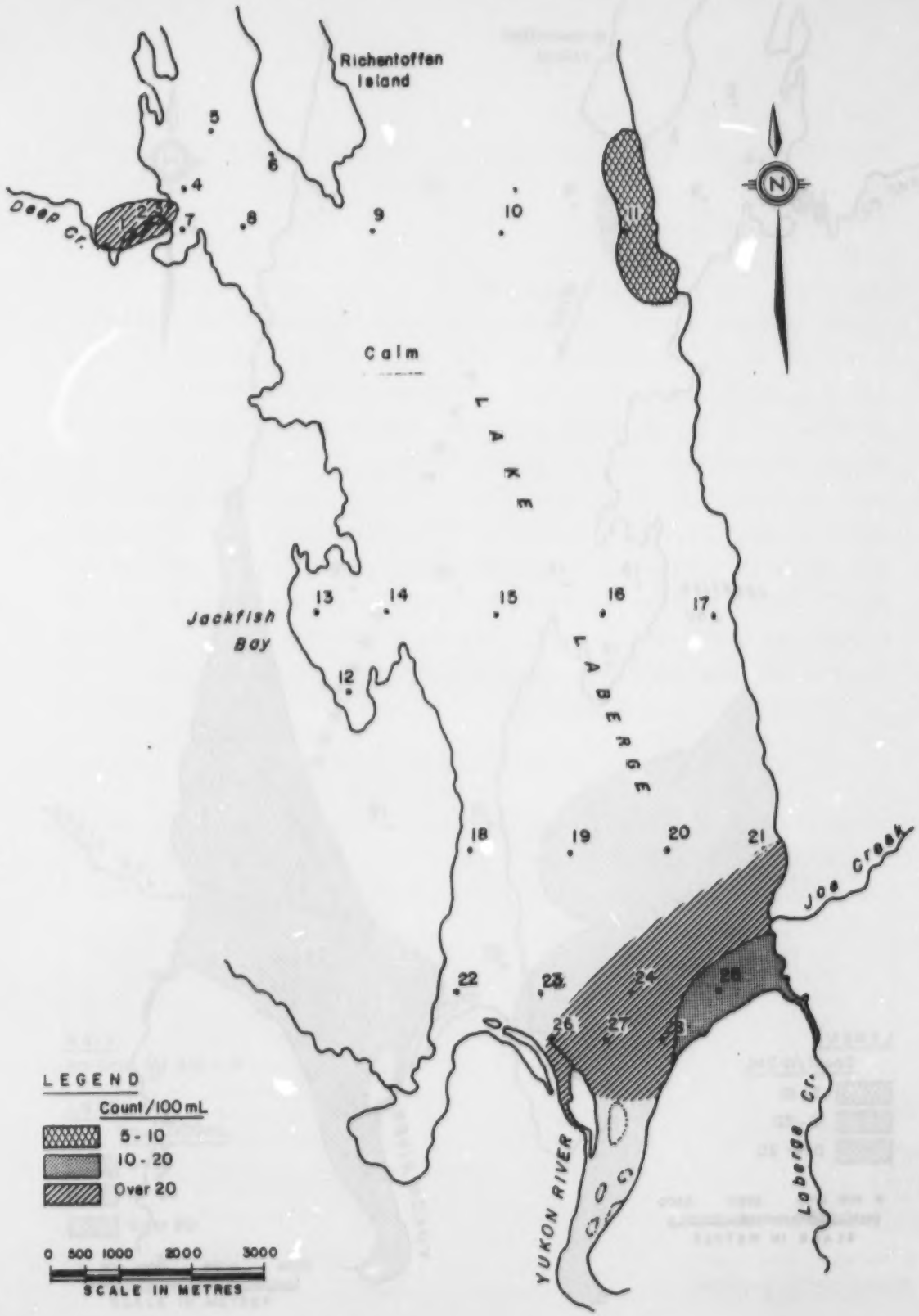

FIGURE 12 FECAL COLIFORMS - July 31, 1978

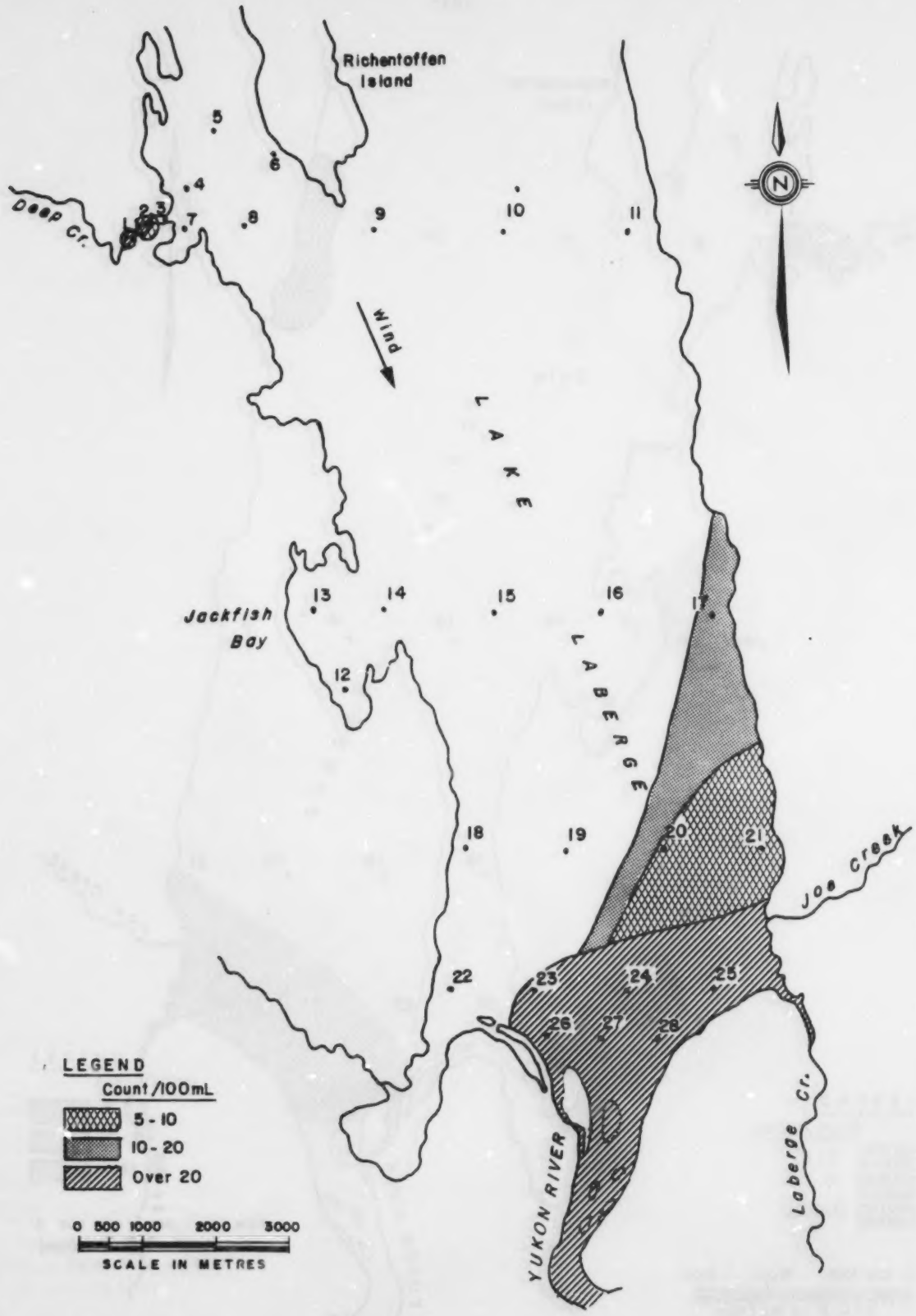

FIGURE 13 FECAL COLIFORMS - August 22, 1978

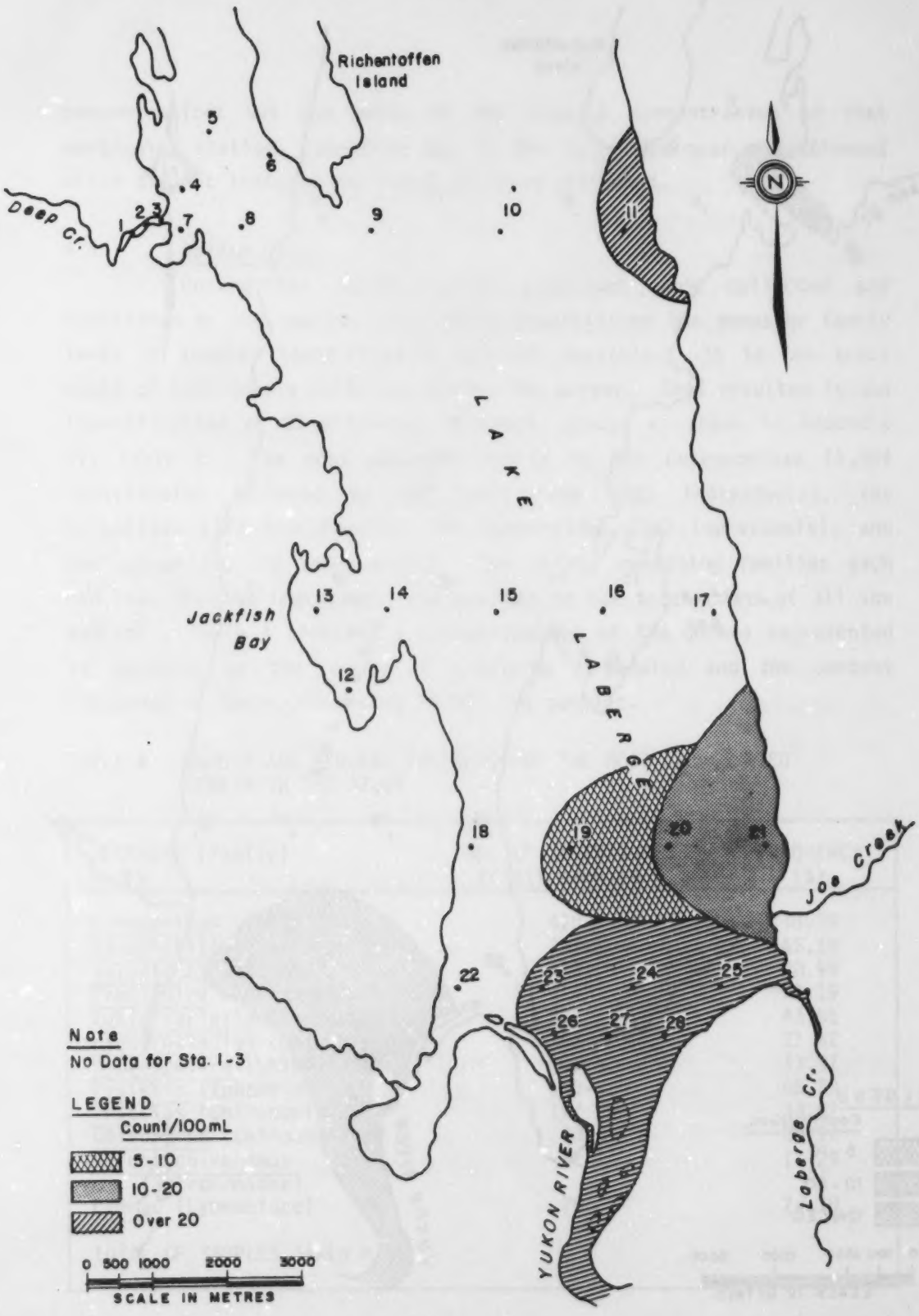

FIGURE 14 FECAL COLIFORMS - July 8-11, 1980

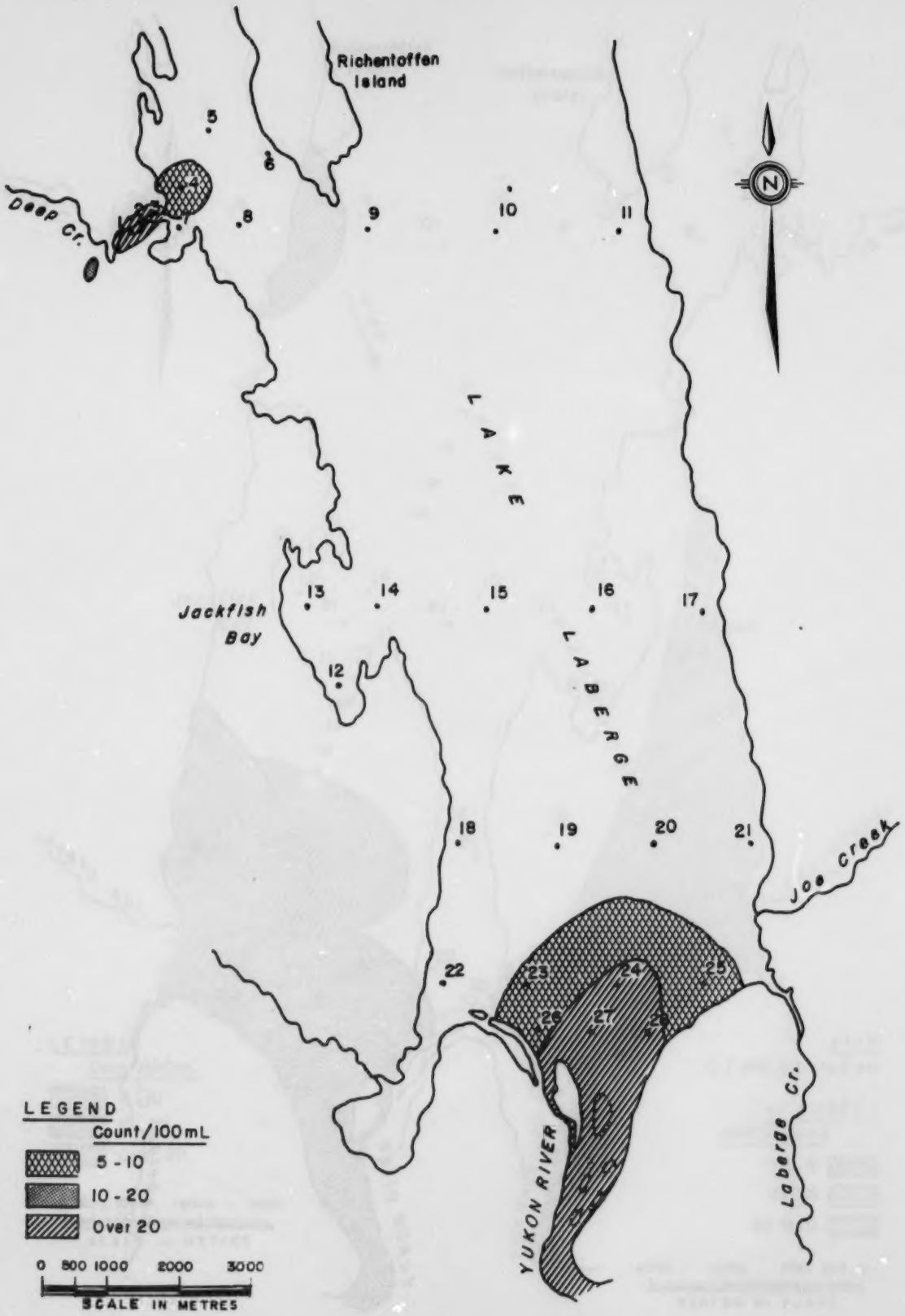

FIGURE 15 FECAL COLIFORMS - August 5-7, 1980

concentrations but the value of the highest concentration at that particular station. Jackfish Bay is the only area near a settlement which did not indicate any fecal coliform pollution.

4.3 Bottom Fauna

During the survey, 3,748 organisms were collected and identified to the species level where possible; or the genus or family level if species identification was not possible. It is the total count of individuals collected during the survey. This resulted in the identification of 97 different taxonomic groups as shown in Appendix III Table 2. The most abundant family is the Chironomidae (1,494 individuals) followed by the Tubificidae (821 individuals), the Valvalidae (373 individuals), the Sphaeriidae (163 individuals), and the Lymnaeidae (76 individuals). The thirty remaining families each had less than 40 individuals represented in the total count of all the samples. Table 4 provides a categorization of the genera represented in relation to the number of individuals sampled and the percent frequency of their occurrence in all the samples.

TABLE 4 NUMBER AND PERCENT FREQUENCY OF THE MOST REPRESENTED GENERA IN THE STUDY

GENERA (family)	NO. OF INDIVIDUALS in all samples	FREQUENCY (%)
Limnodrilus (Tubificidae)	410	48.39
Rhyacochillus (Tubificidae)	381	45.16
Valvata (Valvatidae)	373	70.99
Procladius (Chironomidae)	314	74.19
Eukiefferiella (Chironomidae)	233	43.55
Psectrocladius (Chironomidae)	253	27.42
Microspectra (Chironomidae)	205	33.87
Pisiduim (Sphaeridae)	163	48.39
Tribelos (Chironomidae)	127	33.87
Chironomus (Chironomidae)	88	20.97
Stichtichironomus (Chironomidae)	82	11.29
Lymnae (Lymnaeidae)	76	24.19
TOTAL OF SAMPLES TAKEN = 62		

The two most abundant genera belong to the order Annelida. The next most abundant genus belongs to the order Mollusca followed by many genera of the family Chironomidae of the order Diptera. The most frequent genus is Procladius of the Diptera which is a predator but may function as a collector-gatherer (Merritt 1978).

The other Chironomids are typically collector-gatherers which live in the lentic profundal zone with some on the lentic littoral zone.

The density of individuals varies, but generally the greatest number of organisms occur in the littoral zone while in the deep profundal zone the populations are less dense.

The diversity index shows low values, with a very wide range (0.0-.96). The samples taken show a low number of individuals which may be caused by a poor benthic community or by poor sampling techniques that is, the jaws not properly closed. The variations of values can also be greatly influenced by seasonal changes as well as the low biotic capacity of the substrate.

REFERENCES

Bethel, G. and B.E. Burns, The Chemical and Bacteriological Effects of Municipal Discharges on the Yukon River From the City of Whitehorse, 1977-1980, Environmental Protection Service, Yukon Branch, Environment Canada, Regional Program Report No. 81-28 (1981).

Environmental Protection Agency (EPA), Water Quality Criteria 1972, Committee on Water Quality Criteria, U.S., 594 p. (1973).

Kelso, B. (personal communication) Environmental Protection Service, Pacific and Yukon Region, Kapilano 100 - Park Roayl, West Vancouver, B.C.

Merritt and Cummings , An Introduction of the Aquatic Insects of North America, Kendall/Hunt Publishing Co. Dubuque, 441 p. (1978).

Pennak, R.W.,Fresh-water Invertebrates of United States, John Wiley and Sons, New York, 2nd Ed., 803 p. (1978).

Pharo, C. (personal communication) National Water Research Institute Pacific and Yukon Region, Inland Waters Directorate, Environment Canada, 4160 Marine Drive, West Vancouver, B.C.

Pielou, E.C., Ecological Diversity, John Wiley and Sons, New York, 151 p. (1975).

Ontario, Water Management-Goals, Policies, Objectives and Implementation Procedures of the Ministry of Environment, Ministry of Environment, Toronto, Ontario, 67 p. (1978).

Wetzel, R.G., Limnology, Saunders College Publishing, Philadelphia, 743 p. (1975).

Working Group on Water Quality Objectives, Guidelines for Establishing Water Quality Objectives for the Territorial Waters of the Yukon and Northwest Territories, A report to the chairman of Water Boards, Yukon and Northwest Territories, 47 p. (1977).

ACKNOWLEDGEMENTS

The authors would like to thank all the Environmental Protection Service regular and summer staff for their involvement in project planning, sample collection, collating the data, typing and manuscript review, especially Sara Atkins Baker for having taken charge of the project in the previous years.

APPENDICES

APPENDIX I

COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Depth	1977 1978 1980				
Temperature	1977 1978 1980		In situ temperature reading taken from a sample.	A thermometer or a Yellow Springs Instrument (YSI) Model 33 salinity, conductivity, temperature meter was used.	
Dissolved Oxygen	1977 1978 1980	1.0 mg/L 1.0 mg/L 1.0 mg/L	Duplicate samples collected in 300 mL glass BOD bottles which had been rinsed 3 times with sample. Preserved with 2 mL $MnSO_4$ and 2 mL alkali-iodide azide solution. Samples were mixed by inverting them 15 times. A water seal was maintained and the samples were analyzed within 7 days.	Iodometric Azide Modification Winkler Titration Method.	048
pH	1977 1978 1980		Small aliquots of samples were taken and read soon after collection. No preservative.	Potentiometric	080
Conductivity	1977 1978 1980	0.2 umhos/cm 0.2 umhos/cm 0.2 umhos/cm	In situ and lab measurement. No preservative.	Conductivity Cell.	044

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Ammonia NH_3-N	1977 1980	0.0050 mg/L 0.0050 mg/L	Single 2 litre samples collected in linear polyethylene containers. The bottle was rinsed 3 times with sample before filling. No preservative. Stored at 4°C.	Phenol hypochlorite-Colorimetric-Automated Method.	058
Colour	1978 1980	1 5	Same sample as NH_3. Same sample as NH_3.	Tristimulus Method. Platinum-Cobalt Visual Comparison Method. Reported in color units.	042 040
Turbidity	1977 1978 1980	0.5 FTU 1.0 FTU 1.0 FTU	Same sample as NH_3.	Nephelometric Turbidity.	130
Non-Filterable Residue (NFR)	1978 1980	10 mg/L 5 mg/L	Same sample as NH_3.	Filtration, drying and weighing.	104
Filterable Residue (FR)	1978 1980	10 mg/L 10 mg/L	Same sample as NH_3.	Filtration, drying and weighing.	100
Total Coliforms	1977 1978 1980		Samples collected in 6 oz. wide mouth screw cap sterile glass bottles. Kept cool (<10°C) and analyzed within 6 hours.	Membrane Filtration Technique.	902

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Fecal Coliforms	1978 1980		Same sample as Total Coliforms.	Membrane Filtration Technique.	902
Total Alkalinity	1977	1.0 mg/L $CaCO_3$	Same sample as NH_3.	Potentiometric Titration.	006
	1978	1.0 mg/L $CaCO_3$			
	1980	1.0 mg/L $CaCO_3$			
Total Hardness	1977 1978 1980		Same sample as metals.	Total hardness calculated from the ICAP concentrations of magnesium and calcium. 1 mg/L Mg = 4.116 mg/L $CaCO_3$ 1 mg/L Ca = 2.497 mg/L $CaCO_3$	
Total Organic Carbon (TOC)	1977	1.0 mg/L	Single samples collected in 120 mL glass jar. The jar was rinsed 3 times with sample before filling. No preservative. Stored at 4°C.	Carbon Infra-red Analyzer.	016
	1978	1.0 mg/L			
	1980	1.0 mg/L			
Total Inorganic Carbon (TIC)	1977	1.0 mg/L	Same sample as TOC.		
	1978	1.0 mg/L			
	1980	1.0 mg/L			

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Ortho Phosphate O PO_4-P	1978	0.0050 mg/L	Same sample as NH_3.	Molybdate-Ascorbic Acid Reduction-Colorimetric-Automated Method.	082
Total Phosphate T PO_4-P	1977 1978 1980	0.010 mg/L 0.0050 mg/L 0.0050 mg/L	Same sample as NH_3.	Acid-Persulfate, Autoclave Digestion. Molybdate-Ascorbic Acid Reduction-Colorimetric Automated Method.	086 082
Nitrite NO_2-N	1977 1978 1980	0.0050 mg/L 0.0050 mg/L 0.0050 mg/L	Same sample as NH_3.	Diazotization-Colorimetric-Automated Method.	070
Nitrate NO_3-N	1977 1978 1980	0.010 mg/L 0.010 mg/L 0.010 mg/L	Same sample as NH_3.	Cadmium-Copper Reduction-Colorimetric Automated Method.	072
Sulphate SO_4	1980	1.00 mg/L	Same sample as NH_3.	Barium Chloranilate-UV Spectrophotometric Method.	122
Chloride Cl	1980	0.50 mg/L	Same sample as NH_3.	Thiocyanate-Combined Reagent-Colorimetric-Automated Method.	024

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Dissolved Metals					
Ca	1977	0.040	200 mL single samples collected in linear polyethylene bottles which had been rinsed 3 times with sample. Filtered immediately through a 0.45 micron filter and preserved to less than pH 1.5 with nitric acid.	Atomic Absorption (AA)	290
Cd	1977	0.010 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Cu	1977	0.010 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Fe	1977	0.030 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Mg	1977	0.030 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Mn	1977	0.030 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Mo	1977	0.30 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Ni	1977	0.050 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Pb	1977	0.020 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Zn	1977	0.010 mg/L	Same sample as Ca.	Atomic Absorption (AA)	290
Hg	1977	0.00020 mg/L	200 mL single samples collected in linear polyethylene bottles which had been rinsed 3 times with sample. Filtered immediately through a 0.45 micron filter and reserved with 10 ml nitric dichromate solution.	Flameless Atomic Absorption (AA)	211 224 284 411

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Extractable Metals					
Ag	1980	0.030 mg/L	200 mL single samples collected in linear polyethylene bottles. Preserved to a pH <1.5 using 2.0 mL concentrated nitric acid.	Flame Atomic Absorption	290
Al	1978	0.20 mg/L	Same sample as Ag.	Inductively Coupled Argon Plasma (ICAP)	210
	1980	0.090 mg/L	Same sample as Ag.		592
As (Total)	1977	0.0010 mg/L	Single samples collected and shipped.	Total Arsenic by Graphite Furnace	*
As (Ext.)	1978	0.20 mg/L	Same sample as Ag.	ICAP	210/592
As (Ext.)	1980	0.15 mg/L	Same sample as Ag.	ICAP	210/592
Ba	1978	0.0030 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.0030 mg/L	Same sample as Ag.	ICAP	210/592
Ca	1977	0.040 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.025 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.025 mg/L	Same sample as Ag.	ICAP	210/592
Cd	1977	0.010 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.010 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.010 mg/L	Same sample as Ag.	ICAP	210/592
Co	1978	0.020 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.015 mg/L	Same sample as Ag.	ICAP	210/592

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Cr	1978	0.020 mg/L	Same sample as Ag.	Inductively Coupled Argon Plasma (ICAP)	210 592
	1980	0.015 mg/L	Same sample as Ag.	ICAP	210/592
Cu	1977	0.010 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.020 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.010 mg/L	Same sample as Ag.	ICAP	210/592
Fe	1977	0.030 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.020 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.010 mg/L	Same sample as Ag.	ICAP	210/592
Hg (Total)	1977	0.00020 mg/L	200 mL single samples collected in linear polyethylene bottles. Preserved with 5% nitric dichromate solution.	Flameless Atomic Absorption	211 224 284 411
	1978	0.10 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.10 mg/L	Same sample as Ag.	ICAP	210/592
K	1977	0.010 mg/L	Same sample as Ag.	Atomic Emission (AE)	210/423
	1978	0.010 mg/L	Same sample as Ag.	Atomic Emission (AE)	210/423
	1980	0.010 mg/L	Same sample as Ag.	Atomic Emission (AE)	210/423
Mg	1977	0.030 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.010 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.025 mg/L	Same sample as Ag.	ICAP	210/592

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Mn	1977	0.030 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.0040 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.0030 mg/L	Same sample as Ag.	ICAP	210/592
Mo	1977	0.30 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.20 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.15 mg/L	Same sample as Ag.	ICAP	210/592
Na	1977	0.10 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.030 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.030 mg/L	Same sample as Ag.	ICAP	210/592
Ni	1977	0.050 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.20 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.080 mg/L	Same sample as Ag.	ICAP	210/592
Pb	1977	0.020 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.10 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.080 mg/L	Same sample as Ag.	ICAP	210/592
Sb	1978	0.10 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.080 mg/L	Same sample as Ag.	ICAP	210/592
Se	1978	0.10 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.15 mg/L	Same sample as Ag.	ICAP	210/592
Si	1978	0.40 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.50 mg/L	Same sample as Ag.	Ascorbic Acid Reduction Colorimetric - Automated	210/592

APPENDIX I TABLE 1 WATER SAMPLE, COLLECTION, PRESERVATION AND ANALYSIS METHODS FOR LAKE LABERGE (Continued)

PARAMETER	YEAR	DETECTION LIMIT	FIELD COLLECTION, SAMPLING PROCEDURES, PRESERVATION	ANALYTICAL PROCEDURE	METHOD SECTION[1]
Sn	1978	0.10 mg/L	Same sample as Ag.	Inductively Coupled Argon Plasma (ICAP)	210/592
	1980	0.20 mg/L	Same sample as Ag.	ICAP	210/592
Sr	1978	0.0095 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.0040 mg/L	Same sample as Ag.	ICAP	210/592
Tl	1978	0.010 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.0085 mg/L	Same sample as Ag.	ICAP	210/592
V	1978	0.030 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.050 mg/L	Same sample as Ag.	ICAP	210/592
Zn	1977	0.01 mg/L	Same sample as Ag.	Atomic Absorption (AA)	290
	1978	0.020 mg/L	Same sample as Ag.	ICAP	210/592
	1980	0.020 mg/L	Same sample as Ag.	ICAP	210/592

[1] Department of the Environment, Department of Fisheries and Oceans, Laboratory Manual, Environmental Protection Service, Fisheries and Marine Service (1979).

* These arsenic samples were analyzed by Cantest Ltd., 1650 Pandora Street, Vancouver, British Columbia.

APPENDIX I TABLE 2 LAKE LABERGE WATER QUALITY DATA, PARAMETERS AND SAMPLING PERIODS

PARAMETERS	July 5/77	Aug 29/77	June 8-10/78	June 19-20/78	July 10-12/78	Jul 31-Aug 2/78	Aug 22-25/78	July 8-11/80	Aug 5-7/80
Depth (m)	+	+	+	+	+	+	+	+	+
Temperature (°C)	+	+	+	+	+	+	+	*	*
Dissolved Oxygen (DO) (mg/L)	+	+	+	+	+	+	+	+	+
% DO Saturation	+	+	+	+	+	+	+	*	*
pH in situ	+	+	+	+	+	+	+	+	*
pH lab	+	+	+	+	*	+	-	+	+
Conductivity in situ (umhos/cm)	+	+	+	+	+	+	+	*	-
Conductivity lab (umhos/cm)	-	-	-	-	-	-	-	+	+
Colour (Colour Units)	-	-	-	-	-	-	-	+	+
Turbidity (FTU)	+	+	+	-	+	-	*	+	+
Non-Filterable Residue (mg/L)	-	-	-	-	+	+	+	+	+
Total Coliforms per 100 mL	+	+	-	+	+	+	+	+	+
Fecal Coliforms per 100 mL	-	-	-	+	+	+	+	+	+
Total Alkalinity(mg/L as $CaCO_3$)	+	+	-	+	+	+	+	+	+
Total Hardness(mg/L as $CaCO_3$)	+	+	-	+	+	+	+	+	+
TOC (mg/L)	+	+	-	+	+	+	+	+	+
TIC (mg/L)	+	+	+	-	-	-	+	+	+
Ortho PO_4-P (mg/L)	-	-	-	-	+	-	+	-	-
Total PO_4-P (mg/L)	+	+	-	-	+	-	*	+	+
NO_2-N (mg/L)	+	+	+	+	+	+	*	+	+
NO_3-N (mg/L)	+	+	+	+	+	+	+	+	+
NH_3-N (mg/L)	+	+	-	-	-	-	+	+	+
SO_4 (mg/L)	-	-	-	-	-	-	-	+	+
Cl (mg/L)	-	-	-	-	-	-	-	+	+
Ag (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	-	-	-	-	-	*	*
Al (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
As (d) (mg/L)	+	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+

\+ = data obtained
\- = no data obtained
* = inconsistency in data obtained (depth and stations missing)
(d) = dissolved metals
(e) = extractable metals

APPENDIX I TABLE 2 LAKE LABERGE WATER QUALITY DATA, PARAMETERS AND SAMPLING PERIODS (Continued)

PARAMETERS	July 5/77	Aug 29/77	June 8-10/78	June 19-20/78	July 10-12/78	Jul 31-Aug 2/78	Aug 22-25/78	July 8-11/80	Aug 5-7/80
Ba (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Ca (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	+	+	+	+	+	+
Cd (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+
Co (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Cr (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Cu (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+
Fe (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+
Hg (d) (mg/L)	+	-	-	-	-	-	-	-	-
(e) (mg/L)	-	+	+	-	+	-	+	+	+
K (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	-	-	-	-	-	*	+
Mg (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	+	+	+	+	+	+
Mn (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+
Mo (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+
Na (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Ni (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+
Pb (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+

\+ = data obtained
\- = no data obtained
* = inconsistency in data obtained (depth and stations missing)
(d) = dissolved metals
(e) = extractable metals

APPENDIX I TABLE 2 LAKE LABERGE WATER QUALITY DATA, PARAMETERS AND SAMPLING PERIODS (Continued)

PARAMETERS	July 5/77	Aug 29/77	June 8-10/78	June 19-20/78	July 10-12/78	Jul 31-Aug 2/78	Aug 22-25/78	July 8-11/80	Aug 5-7/80
Sb (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Se (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Si (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	-	-	+	+	+
Sn (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Sr (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Ti (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
V (d) (mg/L)	-	-	-	-	-	-	-	-	-
(e) (mg/L)	-	-	+	-	+	-	+	+	+
Zn (d) (mg/L)	+	+	-	-	-	-	-	-	-
(e) (mg/L)	+	+	+	-	+	-	+	+	+

\+ = data obtained
\- = no data obtained
* = inconsistency in data obtained (depth and stations missing)
(d) = dissolved metals
(e) = extractable metals

APPENDIX I TABLE 3 BOTTOM FAUNA COLLECTION, PRESERVATION AND IDENTIFICATION METHODS

FIELD COLLECTION, SAMPLING PROCEDURES AND PRESERVATION	LABORATORY PROCEDURES	IDENTIFICATION AND ENUMERATION
Eckman dredge: The samples were taken using an Eckman dredge of 15 cm x 15 cm x 23 cm in size. The sample area 225 cm^2 (.25 ft^2). The samples were washed using a #30 standard screen, put in separate labelled glass jars and preserved with 10% formalin. Three samples were taken at each station unless otherwise specified.	Bottom fauna was removed from other material and placed in a labelled vial containing 70% methanol.	Bottom fauna was sent to Dr. Charles Low, Consulting Invertebrate Biologist, at Nanaimo, British Columbia, for identification to genus, species if possible, and enumeration.

APPENDIX II

WATER QUALITY DATA

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1												
2												
3												
4	0	11.0	10.1	99	8.13	7.9	85			1.7		
	2	10.6	10.31	100	7.86	8.0	85			1.5		
5	0	11.0	10.31	100	8.20	7.9	70			1.5		
	2	11.0	10.3	100	8.15	7.8	70			1.9		
	8	10.0	10.4	100	8.10	7.9	68			2.0		
6	0	10.0	10.2	98	8.30	7.7	67			1.2		
	2	10.0	10.2	98	8.31	7.7	69			1.7		
	14	5.0	11.0	93	8.00	7.8	60			1.5		
7												
8	0	10.0	10.1	97	8.39	7.9	68			2.2		
	2	10.4	10.1	97	8.35	7.9	71			2.0		
	11	6.9	10.41	93	8.29	7.8	65			2.0		
9												
10												

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(I) Physical and Chemical Parameters*

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
11												
12	0	12.3	10.0	100	8.24	8.0	73			1.3		
	3	9.1	10.7	100	8.35	7.8	69			1.5		
13	0	11.8	10.2	97	8.31	7.9	71			1.2		
	4	9.0	10.3	96	8.25	7.9	67			1.6		
14	0	11.2	10.1	99	8.11	7.9	70			1.2		
	4	5.1	11.1	94	8.20	7.7	64			0.9		

* No data was obtained for Stations 15 to 28 on this date.

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1														
2														
3														
4	0	0		51	53	3.0	13.0		<0.010	<0.0050	<0.010	0.0090		
	2	295		53	-	3.0	13.0		<0.010	<0.0050	<0.010	0.0550		
5	0	0		44	48	2.0	12.0		<0.010	<0.0050	<0.010	<0.0050		
	2	4		44	47	2.0	12.0		<0.010	<0.0050	<0.010	0.0050		
	8	1		43	39	1.0	12.0		<00010	<0.0050	<0.010	0.0050		
6	0	0		43	44	<1.0	12.0		<0.010	<0.0050	<0.010	0.0050		
	2	9		43	46	1.0	12.0		<0.010	<0.0050	<0.010	<0.0050		
	14	5		44	46	1.0	12.0		<0.010	<0.0050	<0.010	<0.0050		
7														
8	0	0		44	46	1.0	12.0		<0.010	<0.0050	<0.010	<0.0050		
	2	1		43	47	2.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	11	0		44	52	2.0	12.0		<0.010	<0.0050	0.012	0.0050		

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(II) Bacterial and Chemical Parameters*

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9														
10														
11														
12	0	0		44	46	2.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	3	1		43	47	2.0	11.0		<0.010	<0.0050	<0.010	0.0050		
13	0	0		44	46	1.2	2.0		<0.010	<0.0050	<0.010	<0.0050		
	4	6		43	46	1.6	2.0		<0.010	<0.0050	<0.010	<0.0050		
14	0	0		44	39	1.2	2.0		<0.010	<0.0050	<0.010	<0.0050		
	4	2		43	43	0.9	2.0		<0.010	<0.0050	0.022	0.0060		

* No data was obtained for Stations 15 to 28 on this date.

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(III) Dissolved Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1														
2														
3														
4	0			0.002		16.0	<0.010			<0.010	0.060	<0.00020		4.40
	2			0.001		16.0	<0.010			<0.010	0.030	<0.00020		4.50
5	0			0.001		14.0	<0.010			<0.010	0.040	<0.00020		3.00
	2			<0.001		15.0	<0.010			<0.010	0.050	<0.00020		2.90
	8			<0.001		14.0	<0.010			<0.010	0.040	0.00020		2.60
6	0			<0.001		14.0	<0.010			<0.010	<0.030	<0.00020		2.60
	2			<0.001		15.0	<0.010			<0.010	<0.030	<0.00020		2.70
	14			<0.001		14.0	<0.010			<0.010	0.050	<0.00020		2.70
7														
8	0			<0.001		14.0	<0.010			<0.010	0.060	<0.00020		3.00
	2			<0.001		15.0	<0.010			<0.010	0.040	<0.00020		3.00
	11			<0.001		13.0	<0.010			<0.010	0.050	<0.00020		2.60
9														
10														

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(III) Dissolved Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11														
12	0			0.001		14.0	<0.010			<0.010	<0.030	<0.00020		2.80
	3			<0.001		15.0	<0.010			<0.010	<0.030	<0.00020		2.80
13	0			<0.001		16.0	<0.010			<0.010	<0.030	<0.00020		3.40
	4			<0.001		14.0	<0.010			<0.010	0.040	<0.00020		2.60
14	0			<0.001		15.0	<0.010			<0.010	<0.030	<0.00020		2.60
	4			<0.001		15.0	<0.010			<0.010	<0.030	<0.00020		2.90

* No data was obtained for Stations 15 to 28 on this date.

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(iv) Dissolved Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
1														
2														
3														
4	0	<0.030	<0.30		<0.050	<0.020								
	2	<0.030	<0.30		<0.050	<0.020								<0.010
														0.010
5	0	<0.030	<0.30		<0.050	<0.020								
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	8	<0.030	<0.30		<0.050	<0.020								0.010
														<0.010
6	0	<0.030	<0.30		<0.050	<0.020								
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	14	<0.030	<0.30		<0.050	<0.020								<0.010
														<0.010
7														
8	0	<0.030	<0.30		<0.050	<0.020								
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	11	<0.030	<0.30		<0.050	<0.020								<0.010
														<0.010
9														
10														

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(iv) Dissolved Metals - Mn to Zn*

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Tl mg/l	V mg/l	Zn mg/l
11														
12	0	<0.030	<0.30		<0.050	<0.020								<0.010
	3	<0.030	<0.30		<0.050	<0.020								<0.010
13	0	<0.030	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010
14	0	<0.030	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010

* No data was obtained for Stations 15 to 28 on this date.

APPENDIX II - TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(v) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1														
2														
3														
4	0					14.0	<0.010			<0.010	0.120			4.50
	2					-	-			-	-			-
5	0					14.0	<0.010			<0.010	0.050			3.10
	2					14.0	<0.010			<0.010	0.110			2.90
	8					11.0	<0.010			<0.010	0.060			2.80
6	0					13.0	<0.010			<0.010	0.050			2.80
	2					14.0	<0.010			<0.010	0.040			2.80
	14					14.0	<0.010			<0.010	0.040			2.80
7														
8	0					14.0	<0.010			<0.010	0.070			2.70
	2					14.0	<0.010			<0.010	0.120			2.90
	11					16.0	<0.010			<0.010	0.090			3.00
9														
10														

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(v) Extractable Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11														
12	0					14.0	<0.010			<0.010	0.030			2.80
	3					14.0	<0.010			<0.010	0.070			2.90
13	0					14.0	<0.010			<0.010	0.070			2.80
	4					14.0	<0.010			<0.010	0.060			2.70
14	0					11.0	<0.010			<0.010	<0.030			2.90
	4					13.0	<0.010			<0.010	0.030			2.50

* No data was obtained for Stations 15 to 28 on this date.

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(vi) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
1														
2														
3														
4	0	<0.030	<0.30		<0.050	<0.020								0.010
	2	-	-		-	-								-
5	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								0.020
	8	<0.030	<0.30		<0.050	<0.020								<0.010
6	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	14	<0.030	<0.30		<0.050	<0.020								<0.010
7														
8	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	11	<0.030	<0.30		<0.050	<0.020								<0.010
9														

APPENDIX II TABLE 1 LAKE LABERGE WATER QUALITY DATA - JULY 5, 1977 (continued)
(vi) Extractable Metals - Mn to Zn*

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
10														
11														
12	0	<0.030	<0.30		<0.050	<0.020								<0.010
	3	<0.030	<0.30		<0.050	<0.020								<0.010
13	0	<0.030	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010
14	0	<0.030	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010

* No data was obtained for Stations 15 to 28 on this date.

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATUR-ATION	IN SITU pH	LAB pH	IN SITU CONDUC-TIVITY (umhos/cm)	LAB CONDUC-TIVITY (umhos/cm)	COLOUR (colour units)	TURB-IDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1												
2												
3												
4	0	14.5	9.2	98	7.9	8.0	70			1.3		
	2	14.5	9.1	97	8.2	8.1	100			1.7		
5	0	15.0	9.1	97	7.8	8.0	68			1.3		
	2	15.0	9.0	96	7.8	8.0	68			1.0		
	8	14.8	9.3	99	7.9	8.0	65			3.3		
6	0	15.2	8.9	95	7.6	8.0	68			1.5		
	2	15.5	8.9	97	7.7	7.9	69			1.3		
	14	15.0	9.0	96	7.7	7.9	65			1.7		
7												
8	0	15.2	8.7	93	7.7	7.9	65			1.3		
	2	15.2	9.0	96	7.9	8.0	68			1.3		
	11	15.0	9.0	96	7.8	7.9	68			7.5		
9												
10												
11												

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(I) Physical and Chemical Parameters*

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
12	0	14.5	9.0	96	7.9	7.9	68			1.5		
	3	14.2	8.9	93	7.8	7.9	67			5.0		
13	0	15.0	9.0	96	7.8	7.9	65			1.3		
	4	14.5	9.0	96	7.9	7.9	65			2.5		
14	0	15.0	8.8	94	7.7	7.9	61			2.0		
	4	15.0	8.9	95	7.7	8.0	68			2.3		

* No data was obtained for Stations 15 to 28 on this date.

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1														
2														
3														
4	0	1		40	43	1.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	2	10		53	64	1.0	15.0		<0.010	<0.0050	<0.010	<0.0050		
5	0	0		39	39	1.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	2	2		38	42	1.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	8	0		39	42	1.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
6	0	0		37	39	2.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	2	0		38	39	1.0	10.0		<0.010	<0.0050	<0.010	<0.0050		
	14	2		39	42	2.0	11.0		0.028	<0.0050	<0.010	<0.0050		
7														
8	0	1		38	39	1.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	2	0		39	39	1.0	11.0		<0.010	<0.0050	<0.010	<0.0050		
	11	0		39	42	2.0	10.0		0.015	<0.0050	<0.010	<0.0050		

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(II) Bacterial and Chemical Parameters*

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9														
10														
11														
12	0	0		39	39	4.0	10.0		<0.010	<0.0050	<0.010	<0.0050		
	3	3		38	40	3.0	10.0		<0.010	<0.0050	<0.010	<0.0050		
13	0	0		39	39	2.0	10.0		<0.010	<0.0050	<0.010	<0.0050		
	4	0		39	39	2.0	10.0		<0.010	<0.0050	<0.010	<0.0050		
14	0	1		37	38	2.0	10.0		<0.010	<0.0050	<0.010	<0.0050		
	4	2		37	39	3.0	10.0		<0.010	<0.0050	<0.010	<0.0050		

* No data for Stations 15 to 28 on this date.

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(III) Dissolved Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1														
2														
3														
4	0					13.0	<0.010			<0.010	<0.030			2.30
	2					19.0	<0.010			<0.010	<0.030			4.90
5	0					13.0	<0.010			<0.010	<0.030			2.10
	2					12.0	<0.010			<0.010	<0.030			2.10
	8					12.0	<0.010			<0.010	<0.030			2.10
6	0					12.0	<0.010			<0.010	<0.030			2.00
	2					12.0	<0.010			<0.010	<0.030			2.00
	14					13.0	<0.010			<0.010	0.060			2.20
7														
8	0					12.0	<0.010			<0.010	<0.030			2.10
	2					12.0	<0.010			<0.010	<0.030			2.10
	11					13.0	<0.010			<0.010	<0.030			2.10
9														
10														

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(III) Dissolved Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11														
12	0					13.0	<0.010			<0.010	<0.030			2.20
	3					13.0	<0.010			<0.010	<0.030			2.20
13	0					12.0	<0.010			<0.010	<0.030			2.20
	4					12.0	<0.010			<0.010	0.040			2.30
14	0					12.0	<0.010			<0.010	<0.030			2.10
	4					12.0	<0.010			<0.010	0.040			2.10

* No data for Stations 15 to 28 on this date.

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(iv) Dissolved Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	NI mg/l	Pb mg/l	Sb mg/l	Se mg/l	SI mg/l	Sn mg/l	Sr mg/l	TI mg/l	V mg/l	Zn mg/l
1														
2														
3														
4	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
5	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	8	<0.030	<0.30		<0.050	<0.020								<0.010
6	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	14	<0.030	<0.30		<0.050	<0.020								<0.010
7														
8	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	11	<0.030	<0.30		<0.050	<0.020								<0.010
9														
10														

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(iv) Dissolved Metals - Mn to Zn*

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Tl mg/l	V mg/l	Zn mg/l
11														
12	0	<0.030	<0.30		<0.050	<0.020								<0.010
	3	<0.030	<0.30		<0.050	<0.020								<0.010
13	0	<0.030	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010
14	0	<0.030	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010

* No data for Stations 15 to 28 on this date.

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(v) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1														
2														
3														
4	0					13.0	<0.010			<0.010	<0.030	<0.00020		2.50
	2					18.0	<0.010			<0.010	0.110	<0.00020		4.50
5	0					12.0	<0.010			<0.010	<0.030	<0.00020		2.10
	2					13.0	<0.010			<0.010	<0.030	<0.00020		2.20
	8					13.0	<0.010			<0.010	0.070	<0.00020		2.20
6	0					12.0	<0.010			<0.010	<0.030	<0.00020		2.10
	2					12.0	<0.010			<0.010	<0.030	<0.00020		2.10
	14					13.0	<0.010			<0.010	0.130	<0.00020		2.20
7														
8	0					12.0	<0.010			<0.010	<0.030	<0.00020		2.10
	2					12.0	<0.010			<0.010	0.050	<0.00020		2.10
	11					13.0	<0.010			<0.010	0.080	<0.00020		2.20
9														
10														

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(v) Extractable Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11														
12	0					12.0	<0.010			<0.010	0.040	<0.00020		2.10
	3					12.0	<0.010			<0.010	0.670	<0.00020		2.40
13	0					12.0	<0.010			<0.010	0.070	<0.00020		2.10
	4					12.0	<0.010			<0.010	0.060	<0.00020		2.10
14	0					12.0	<0.010			<0.010	0.080	<0.00020		2.00
	4					12.0	<0.010			<0.010	0.070	<0.00020		2.10

* No data on Stations 15 to 28 on this date.

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(vi) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
1														
2														
3														
4	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
5	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	8	<0.030	<0.30		<0.050	<0.020								<0.010
6	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	14	<0.030	<0.30		<0.050	<0.020								<0.010
7														
8	0	<0.030	<0.30		<0.050	<0.020								<0.010
	2	<0.030	<0.30		<0.050	<0.020								<0.010
	11	<0.030	<0.30		<0.050	<0.020								<0.010
9														
10														

APPENDIX II TABLE 2 LAKE LABERGE WATER QUALITY DATA - AUGUST 29, 1977 (continued)
(vi) Extractable Metals - Mn to Zn*

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
11														
12	0	<0.030	<0.30		<0.050	<0.020								<0.010
	3	0.040	<0.30		<0.050	<0.020								<0.010
13	0	0.040	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010
14	0	<0.030	<0.30		<0.050	<0.020								<0.010
	4	<0.030	<0.30		<0.050	<0.020								<0.010

* No data on Stations 15 to 28 on this date.

APPENDIX II TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - JUNE 8 - 10, 1978
(I) Physical and Chemical Parameters*

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
13	0	12	10.30	102	7.32	7.9		72				
	3	12.2	11.06	110	7.8	7.8		72				
14	0	9.5	11.76	109	7.7	7.9		68				
	3	7.3	11.70	103	7.8	7.9		63				
15	0	4.8	10.18	86	7.92	7.8		56				
	3	5.0	11.19	94	8.15	7.8		58				
	12	4.7	11.85	99	7.95	7.8		57				
18	0	5.2	11.57	96	7.5	7.8		56				
	3	5.4	11.74	98	7.4	7.8		57				
	12	5.4	11.62	97	7.39			58				
19	0	5.1	11.66	98	7.7	7.8		58				
	3	5.8	11.80	102	7.71	7.8		59				
	12	5.3	11.85	99	7.64	7.8		56				
20	0	12.3	10.39	104	7.58	7.9		69				
	3	9.0	11.01	103	7.98	7.8		64				
	12	7.0	11.62	103	7.8	7.8		60				

* No data was obtained for stations 1 - 12, 16 & 17.

APPENDIX II TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - JUNE 8 - 10, 1978 (Continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATUR-ATION	IN SITU pH	LAB pH	IN SITU CONDUC-TIVITY (umhos/cm)	LAB CONDUC-TIVITY (umhos/cm)	COLOUR (colour units)	TURB-IDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
21	0	12.5	10.24	102	7.49	7.9		62				
	3	11.1	10.19	99	7.81	8.0		59				
22	0	6.0			7.55	7.9		55				
23	0	4.8	12.29	104	7.3	7.9		55				
24	0	8.2	12.19	110	7.65	7.9		68				
	3	6.2	11.92	103	7.55			60				
25	0	11.8	10.55	105	7.1	7.9		69				
26	0	11.0	11.60	113	8.1			65				
27	0	11.0	11.96	116	7.9			65				
28	0	11.0	9.95	97	8.2			65				

APPENDIX II TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - JUNE 8 - 10, 1978 (Continued)
(II) Bacterial and Chemical Parameters*

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
13	0			43.9	43.6		2.0			<0.005	<0.010			
	3			42.9	42.7		2.0			<0.005	0.015			
14	0			42.9	42.1					<0.005	0.016			
	3			42.9	43.5					<0.005	0.014			
15	0			42.5	43.0					<0.005	0.019			
	3			42.9	42.4					<0.005	0.019			
	12			42.5	42.7					<0.005	0.019			
18	0			43.4	44.2		2.0			<0.005	0.036			
	3			43.4	43.8		2.0			<0.005	0.016			
	12			43.4	43.4									
19	0			43.4	43.5		2.0			<0.005	0.019			
	3			43.4	44.2		2.0			<0.005	0.021			
	12			42.9	44.1		2.0			<0.005	0.030			
20	0			43.9	46.2		2.0			<0.005	0.019			
	3			43.9	45.4		2.0			<0.005	<0.010			
	12			43.9	44.1		2.0			<0.005	<0.010			
21	0			44.9	48.0		2.0			<0.005	<0.010			
	3			46.4	48.3		2.0			<0.005	<0.010			

* No data was obtained for stations 1 - 12, 16 & 17.

APPENDIX II TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - JUNE 8 - 10, 1978 (Continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
22	0			42.9	42.3		2.0			<0.005	0.014			
23	0			42.9	44.0		2.0				0.019			
24	0			43.4	44.1		3.0				0.017			
	3			43.4	43.0		2.0				0.020			
25	0			44.4	47.4		3.0				0.013			
26	0				44.6									
27	0				43.5									
28	0				45.9									

APPENDIX II TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - June 8 - 10, 1978 (Continued)
(III) Extractable Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
13	0		<.20	<.20	.0263	13.9	<.01	<.02	<.02	<.020	.129	<.10		2.15
	3		<.20	<.20	.0263	14.0	<.01	<.02	<.02	<.020	.128	<.10		2.12
14	0		<.20	<.20	.0238	13.5	<.01	<.02	<.02	<.020	.062	<.10		2.03
	3		<.20	<.20	.0353	13.7	<.01	<.02	<.02	<.020	.655	<.10		2.26
15	0		<.20	<.20	.0249	13.8	<.01	<.02	<.02	<.020	.079	<.10		2.08
	3		<.20	<.20	.0242	13.5	<.01	<.02	<.02	<.020	.160	<.10		2.10
	12		<.20	<.20	.0243	13.7	<.01	<.02	<.02	<.020	.076	<.10		2.05
18	0		<.20	<.20	.0248	14.2	<.010	<.020	<.020	<.020	.149	<.10		2.13
	3		<.20	<.20	.0243	14.0	<.010	<.020	<.020	<.020	.093	<.10		2.14
	12		<.20	<.20	.0242	13.9	<.010	<.020	<.020	<.020	.101	<.10		2.11
19	0		<.20	<.20	.0244	14.0	<.010	<.020	<.020	<.020	.079	<.10		2.07
	3		<.20	<.20	.0253	14.2	<.010	<.020	<.020	<.020	.071	<.10		2.13
	12		<.20	<.20	.0250	14.2	<.010	<.020	<.020	<.020	.086	<.10		2.11
20	0		<.20	<.20	.0485	14.4	<.010	<.020	<.020	<.020	1.45	<.10		2.49
	3		<.20	<.20	.0345	14.4	<.010	<.020	<.020	<.020	.667	<.10		2.30
	12		<.20	<.20	.0273	14.1	<.010	<.020	<.020	<.020	.200	<.10		2.17
21	0		<.20	<.20	.0379	15.3	<.010	<.020	<.020	<.020	.796	<.10		2.37
	3		<.20	<.20	.0432	15.3	<.010	<.020	<.020	<.020	1.09	<.10		2.44

* No data was obtained for stations 1 - 12, 16 & 17.

APPENDIX II TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - June 8 - 10, 1978 (Continued)
(III) Extractable Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
22	0		<.20	<.20	.0250	13.9	<.010	<.020	<.020	<.020	.024	<.10		2.08
23	0		<.20	<.20	.0246	14.1	<.010	<.020	<.020	<.020	.024	<.10		2.14
24	0		<.20	<.20	.0251	14.2	<.010	<.020	<.020	<.020	.029	<.10		2.11
	3		<.20	<.20	.0251	13.8	<.010	<.020	<.020	<.020	.030	<.10		2.07
25	0		<.20	<.20	.0568	14.6	<.010	<.020	<.020	<.020	2.05	<.10		2.65
26	0		<.20	<.20	.0298	14.2	<.010	<.020	<.020	<.020	.377	<.10		2.21
27	0		<.20	<.20	.0250	14.0	<.010	<.020	<.020	<.020	.066	<.10		2.07
28	0		<.20	<.20	.0629	14.4	<.010	<.020	<.020	<.020	2.09	<.10		2.65

* No data was obtained for stations 1 - 12, 16 & 17.

APPENDIX II — TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - June 8, 1978 (Continued)
(III) Extractable Metals - Mn to Zn*

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
13	0	.0113	<.20	1.42	<.20	<.10	<.10	<.10	1.51	<.10	.0772	<.01	<.03	<.02
	3	.0073	<.20	1.43	<.20	<.10	<.10	<.10	1.66	<.10	.0788	<.01	<.03	<.02
14	0	.0041	<.20	1.42	<.20	<.10	<.10	<.10	1.60	<.10	.0727	<.01	<.03	<.02
	3	.0227	<.20	1.79	<.20	<.10	<.10	<.10	2.93	<.10	.0745	<.01	<.03	<.02
15	0	.0687	<.20	1.26	<.20	<.10	<.10	<.10	1.57	<.10	.0734	<.01	<.03	<.02
	3	.0112	<.20	1.19	<.20	<.10	<.10	<.10	1.51	<.10	.0728	<.01	<.03	<.02
	12	.0382	<.20	1.37	<.20	<.10	<.10	<.10	1.65	<.10	.0753	<.01	<.03	<.02
18	0	.0293	<.20	1.44	<.20	<.10	<.10	<.10	1.76	<.10	.0744	<.01	<.03	<.02
	3	.0119	<.20	1.60	<.20	<.10	<.10	<.10	2.48	<.10	.0751	<.01	<.03	<.02
	12	.0839	<.20	1.39	<.20	<.10	<.10	<.10	1.65	<.10	.0728	<.01	<.03	<.02
19	0	.0165	<.20	1.64	<.20	<.10	<.10	<.10	1.86	<.10	.0730	<.01	<.03	<.02
	3	.0505	<.20	1.40	<.20	<.10	<.10	<.10	1.63	<.10	.0759	<.01	<.03	<.02
	12	.0135	<.20	1.42	<.20	<.10	<.10	<.10	1.94	<.10	.0762	<.01	<.03	<.02
20	0	.0381	<.20	1.67	<.20	<.10	<.10	<.10	4.72	<.10	.0747	<0.01	<.03	<.02
	3	.0223	<.20	1.41	<.20	<.10	<.10	<.10	2.91	<.10	.0735	<0.01	<.03	<.02
	12	.0892	<.20	1.39	<.20	<.10	<.10	<.10	1.82	<.10	.0744	<0.01	<.03	<.02
21	0	.1080	<.20	1.51	<.20	<.10	<.10	<.10	3.15	<.10	.0804	<0.01	<.03	<.02
	3	.0388	<.20	1.73	<.20	<.10	<.10	<.10	3.80	<.10	.0807	<0.01	<.03	<.02

* No data was obtained for stations 1 - 12, 16 & 17.

APPENDIX II TABLE 3 LAKE LABERGE WATER CHEMISTRY RESULTS - June 8 - 10 , 1978
(III) Extractable Metals - Mn to Zn*

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
22	0	<.0040	<.20	1.53	<.20	<.10	<.10	<.10	1.61	<.10	.0739	<0.01	<.03	<.02
23	0	<.0040	<.20	1.43	<.20	<.10	<.10	<.10	2.24	<.10	.0758	< .01	<.03	<.02
24	0	.182	<.20	1.46	<.20	<.10	<.10	<.10	1.67	<.10	.0772	<0.01	<.03	<.02
	3	1.72	<.20	1.44	<.20	<.10	<.10	<.10	1.62	<.10	.0730	<0.01	<.03	<.02
25	0	.158	<.20	1.65	<.20	<.10	<.10	<.10	5.63	<.10	.0780	<0.01	<.03	<.02
26	0	.0321	<.20	1.42	<.20	<.10	<.10	<.10	2.26	<.10	.0787	<0.01	<.03	<.02
27	0	.0098	<.20	1.46	<.20	<.10	<.10	<.10	1.61	<.10	.0743	<0.01	<.03	<.02
28	0	.2601	<.20	1.80	<.20	<.10	<.10	<.10	7.23	<.10	.0774	<0.01	<.03	<.02

* No data was obtained for stations 1 - 12, 16 & 17.

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1	0	10.2	10.22	88	8.15	8.2	233					
2	0	12.0	11.38	99	8.20	8.3	254					
3	0	11.0	10.74	94	8.25	8.4	200					
4	0	5.1	11.43	87	7.74	7.9	63					
	3	5.0	12.05	91	7.71	7.9	67					
5												
6	0	6.5	11.54	90	7.0	7.9	66					
	3	6.0	11.99	93	6.9	7.9	68					
7	0	5.5	12.28	95	7.82	7.8	62					
	3	5.5	12.25	94	7.62	7.8	62					
8	0	5.2	12.40	94	7.75	7.9	61					
	3	5.0	12.02	91	7.65	7.8	65					
	12	4.9	12.08	90	7.71	7.8	70					
9	0	8.0	12.18	99	7.25	7.8	61					
	3	5.5	12.26	94	7.45	7.8	65					
	12	5.0	12.00	91	7.30	7.8	70					

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
10	0	5.0	12.02	91	7.48	7.9	60					
	3	5.0	12.04	91	7.10	7.8	62					
	12	5.0	12.26	93	7.30	7.8	69					
11	0	9.0	10.63	89	7.69	7.9	67					
	3	8.0	11.30	92	7.69	7.9	65					
12												
13	0	9.0	11.05	92	7.50	7.9	70					
	3	7.0	11.38	90	7.58	7.9	57					
14	0	4.9	11.52	86	7.55	7.9	60					
	3	4.9	11.60	87	7.50	7.8	60					
15	0	5.0	11.78	89	7.70	7.9	62					
	3	5.0	12.61	96	7.25	7.9	62					
	12	5.0	11.73	89	7.55	7.8	65					
16	0	6.8	11.53	91	7.62	7.9	64					
	3	6.2	11.50	89	7.10	7.9	65					
	12	5.0	11.58	88	7.20	7.9	65					
17	0	9.9	11.56	100	7.61	7.8	65					
	3	6.9	11.50	91	7.68	7.8	65					
	12	6.1	11.22	87	7.60	7.9	69					

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
18	0	5.5	13.01	100	7.33	7.9	62					
	3	5.0	11.90	90	7.19	7.9	63					
	12	4.5	12.43	93	7.39	7.9	69					
19	0	5.0	11.97	91	7.39	7.8	63					
	3	5.0	12.44	94	7.52	7.9	63					
	12	5.0	12.18	92	7.20	7.8	68					
20	0	8.0	13.70	112	7.51	7.9	62					
	3	5.5	11.61	89	7.51	7.8	63					
	12	5.0	12.15	92	7.72	7.8	69					
21	0	11.0	9.71	85	7.55	7.8	56					
	3	10.5	10.87	94	7.59	7.8	78					
22	0	5.5	10.28	79	7.6	7.8	65					
23	0	10.0	12.42	107	7.8	7.8	65					
24	0	11.2	11.28	99	7.95	7.8	65					
	3	-										
25	0	12.5	12.30	112	8.05	7.8	69					
26	0	11.0	10.38	91	8.1	7.8	65					

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
27	0	11.0	11.75	103	7.9	7.8	65					
28	0	11.0	10.42	91	8.2	7.8	65					

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1	0	20	0	136	177	3.0				<0.0050	0.038			
2	0	0	0	138	178	3.0				<0.0050	0.022			
3	0	10	20	113	149	4.0				<0.0050	0.014			
4	0	0	0	42	43.9	1.0				<0.0050	0.016			
	3	0	0	43.1	43.7	1.0				<0.0050	0.016			
5														
6	0	0	0	43.1	43.7	1.0				<0.0050	<0.010			
	3	0	0	42.6	47.0	1.0				<0.0050	<0.010			
7	0	0	0	42.6	43.7	1.0				<0.0050	0.016			
	3	0	0	42.8	43.9	1.0				<0.0050	0.017			
8	0	0	0	44.1	43.4	1.0				<0.0050	0.017			
	3	0	0	43.1	43.6	1.0				<0.0050	0.017			
	12	0	0	42.8	43.4	1.0				<0.0050	0.017			

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9	0	0	0	43.6	43.5	1.0				<0.0050	0.012			
	3	0	0	43.1	43.6	1.0				<0.0050	0.012			
	12	0	0	43.1	43.5	1.0				<0.0050	0.012			
10	0	0	0	43.1	43.4	1.0				<0.0050	0.019			
	3	2	0	42.6	43.7	1.0				<0.0050	0.019			
	12	0	0	42.6	43.5	1.0				<0.0050	0.019			
11	0	0	0	42.6	43.4	1.0				<0.0050	<0.010			
	3	0	0	42.1	40.9	1.0				<0.0050	<0.010			
12														
13	0	0	0	43.6	43.7	1.0				<0.0050	<0.010			
	3	0	0	43.1	43.7	1.0				<0.0050	<0.010			
14	0	0	0	43.1	43.8	1.0				<0.0050	0.014			
	3	0	0	43.1	43.8	1.0				<0.0050	0.015			
15	0	0	0	43.1	43.9	1.0				<0.0050	0.015			
	3	0	0	42.6	46.3	1.0				<0.0050	0.016			
	12	0	0	42.6	46.7	1.0				<0.0050	0.016			

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
16	0	0	0	42.1	43.5	1.0				<0.0050	0.012			
	3	0	0	42.6	47.2	1.0				<0.0050	0.012			
	12	0	0	42.6	43.6	1.0				<0.0050	0.015			
17	0	30	0	41.7	40.7	1.0				<0.0050	0.012			
	3	70	18	41.7	41.4	1.0				<0.0050	<0.010			
	12	50	6	42.1	43.9	1.0				<0.0050	0.012			
18	0	0	0	43.1	43.6	1.0				<0.0050	0.014			
	3	4	0	43.1	43.8	1.0				<0.0050	0.016			
	12	0	0	43.1	41.1	1.0				<0.0050	0.019			
19	0	0	0	42.6	43.6	1.0				<0.0050	0.016			
	3	0	0	42.6	43.9	1.0				<0.0050	0.017			
	12	4	0	42.6	41.0	1.0				<0.0050	0.018			
20	0	210	36	40.7	43.4	1.0				<0.0050	0.012			
	3	250	30	41.8	43.8	1.0				<0.0050	0.012			
	12	40	2	42.8	40.9	1.0				<0.0050	0.017			
21	0	140	14	38.7	40.4	1.0				<0.0050	<0.010			
	3	60	16	42.3	43.1	1.0				<0.0050	<0.010			

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
22	0	0	0	42.3	43.4	1.0				<0.0050	0.017			
23	0		58	42.8	40.8	1.0				<0.0050	0.013			
24	0 3		74	42.8	40.6	1.0				<0.0050	<0.010			
25	0		94	38.2	37.7	1.0				<0.0050	<0.010			
26	0		66	38.7	38.3	1.0				<0.0050	<0.010			
27	0		36	38.2	40.8	1.0				<0.0050	<0.010			
28	0		156	38.2	38.0	1.0				<0.0050	<0.010			

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1	0					42.0								17.4
2	0					42.0								17.8
3	0					36.0								14.3
4	0					14.0								2.16
	3					14.0								2.13
5														
6	0					14.0								2.12
	3					15.0								2.31
7	0					14.0								2.12
	3					14.0								2.16
8	0					14.0								2.06
	3					14.0								2.09
	12					14.0								2.05
9	0					14.0								2.08
	3					14.0								2.10
	12					14.0								2.08
10	0					14.0								2.06
	3					14.0								2.13
	12					14.0								2.08

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11	0					14.0								2.05
	3					13.0								2.05
	12													
12														
13	0					14.0								2.13
	3					14.0								2.12
14	0					14.0								2.15
	3					14.0								2.15
15	0					14.1								2.10
	3					15.0								2.15
	12					15.0								2.25
16	0					14.0								2.08
	3					15.0								2.37
	12					14.0								2.10
17	0					13.0								2.00
	3					13.0								2.18
	12					14.0								2.16
18	0					14.0								2.10
	3					14.0								2.15
	12					13.0								2.09

APPENDIX II TABLE 4 LAKE LABERGE WATER QUALITY DATA - JUNE 19-20, 1978 (continued)
(III) Extractable Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
19	0					14.0								2.09
	3					14.0								2.16
	12					13.0								2.08
20	0					14.0								2.05
	3					14.0								2.15
	12					13.0								2.06
21	0					13.0								1.93
	3					14.0								1.98
22	0					14.0								2.06
23	0					13.0								2.03
24	0					13.0								1.98
	3													
25	0					12.0								1.88
26	0					12.0								2.02
27	0					13.0								2.02
28	0					12.0								1.96

* No data was obtained on Extractable Metals - Mn to Zn for this date.

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1	0	14.0	10.28	96	8.5	-	320			6.3	16	151
2	0	17.0	8.85	89	8.35	-	172			3.4	10	137
3	0	16.0	9.64	94	8.38	-	119			7.5	13	80
4	0	12.7	11.23	102	7.85	-	67			7.3	<10	67
	3	12.1	11.58	104	7.98	-	65			0.5	<10	70
5												
6	0	12.0	11.22	101	8.24	-	66			0.6	<10	66
	3	11.3	11.48	99	8.10	-	67			0.8	<10	65
7	0	12.5	10.90	99	8.4	-	70			0.6	<10	75
	3	11.7	11.25	102	8.4	-	67			0.6	<10	68
8	0	10.0	11.51	99	8.30	-	63			<0.5	<10	68
	3	10.8	11.65	101	8.22	-	64			0.6	<10	67
	12	8.7	11.85	99	8.31	-	63			0.8	<10	76
9	0	11.0	11.84	103	8.1	-	68			0.6	<10	68
	3	11.5	11.56	102	8.4	-	68			0.5	<10	65
	12	9.9	11.68	98	8.3	-	61			0.5	<10	76

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
10	0	10.9	11.08	97	8.02	-	61			0.6	<10	67
	3	12.5	11.15	101	8.2	-	67			0.7	<10	69
	12	10.4	11.51	100	8.3	-	62			0.6	<10	68
11	0	14.9	10.02	94	7.88	-	65			2.7	<10	68
	3	15.0	10.31	97	8.0	-	69			2.0	<10	66
12												
13	0	14.5	10.31	97	8.06	-	70			1.5	<10	71
	3	13.7	10.94	103	7.94	-	70			1.5	<10	68
14	0	8.7	11.94	99	7.70	-	60			1.5	<10	63
	3	10.0	11.44	98	7.88	-	62			1.2	<10	71
15	0	8.6	11.72	96	7.92	-	58			0.6	<10	71
	3	8.8	11.56	95	7.80	-	62			0.6	<10	77
	12	9.2	11.60	97	7.74	-	63			0.7	<10	68
16	0	15.4	9.62	91	7.87	7.9	68		2.0	1.5	<10	63
	3	11.2	11.32	99	7.96	-	63		-	0.7	<10	68
	12	11.4	11.63	103	8.18	-	64		-	0.5	<10	67
17	0	19.0	11.61	120	8.2	8.0	67		5.0	3.0	<10	61
	3	17.3	10.65	107	8.18	8.0	67		5.0	3.5	13	64
	12	10.9	12.03	105	7.98	8.0	65		1.0	0.4	10	65

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
18	0	18	11.29	115	7.90	7.9	73		4	2.3	<10	59
	3	18	11.79	120	8.04	8.0	77		1	0.4	<10	64
	12	12	12.29	110	7.90	8.0	68		<1	1.3	11	57
19	0	19.5	10.10	105	8.15	8.0	73		7	3.0	<10	64
	3	14.8	12.67	120	7.80	8.0	72		<1	0.5	<10	60
	12	12.4	11.82	107	7.90	7.9	70		1	0.5	<10	66
20	0	21.0	10.05	108	7.80	8.0	72		7	3.3	<10	68
	3	16.8	11.15	112	9.1	8.0	72		<1	1.0	<10	69
	12	11.4	11.98	106	8.13	8.0	65		<1	0.4	<10	69
21	0	18	10.41	106	8.3	8.0	68		5	3.0	11	67
	3	17.4	10.57	107	8.15	7.9	69		6	4.5	15	64
22	0	14	10.57	99	7.97	8.0	70		-	1.0	<10	69
23	0	17	10.33	103	7.9	7.9	63		-	4.0	14	61
24	0	16.2	9.60	93	8.2	7.9	63		-	4.3	21	62
	3	16.0	9.66	94	8.1	7.9	62		-	4.0	22	64
25	0	18.0	9.62	98	8.0	8.0	68		-	4.3	14	65
26	0	16.2	9.95	97	7.8	7.9	62		-	4.5	42	62

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
27	0	16.3	9.84	96	7.75	8.0	62		-	9.5	44	57
28	0	16.0	10.14	99	7.85	8.0	60		-	5.0	38	60

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1	0	530	-	86.2	111.0	4.0		0.0070	0.0080	<0.0050	<0.010			
2	0	320	42	81.3	98.4	4.0		0.0050	0.0050	<0.0050	<0.010			
3	0	0	19	47.0	51.7	2.0		0.0060	0.0060	<0.0050	<0.010			
4	0	1	1	42.6	46.8	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	42.1	45.7	2.0		<0.0050	<0.0050	<0.0050	<0.010			
5														
6	0	1	0	42.6	47.7	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	2	0	42.6	45.6	2.0		<0.0050	<0.0050	<0.0050	<0.010			
7	0	0	0	44.1	47.4	3.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	42.6	45.8	2.0		<0.0050	<0.0050	<0.0050	<0.010			
8	0	0	0	42.1	45.3	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	42.6	46.5	3.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	-	-	42.6	46.7	2.0		<0.0050	<0.0050	<0.0050	<0.010			

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9	0	0	0	42.1	25.3	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	42.1	44.5	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	0	0	42.1	45.2	2.0		<0.0050	<0.0050	<0.0050	<0.010			
10	0	0	0	41.6	46.2	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	41.2	45.1	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	0	0	32.3	45.6	2.0		<0.0050	<0.0050	<0.0050	<0.010			
11	0	200	2	39.7	41.9	2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	1000	2	32.3	42.5	2.0		<0.0050	<0.0050	<0.0050	<0.010			
12	0													
	3													
13	0	0	0	42.1		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	3	0	42.1		3.0		<0.0050	<0.0050	<0.0050	<0.010			
14	0	0	0	41.7		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	3	0	42.6		3.0		<0.0050	<0.0050	<0.0050	<0.010			

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
15	0	2	0	42.1		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	2	0	38.7		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	5	0	42.1		2.0		<0.0050	<0.0050	<0.0050	<0.010			
16	0	1	0	38.8		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	57	0	40.7		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	6	0	41.7		2.0		<0.0050	<0.0050	<0.0050	<0.010			
17	0	0	1	36.4		1.0		0.0063	<0.0050	<0.0050	<0.010			
	3	220	5	46.7		2.0		0.094	<0.0050	<0.0050	<0.010			
	12	30	0	42.3		2.0		<0.0050	<0.0050	<0.0050	<0.010			
18	0	-	-	38.6		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	2	0	42.8		1.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	2	0	36.9		1.0		<0.0050	<0.0050	<0.0050	<0.010			
19	0	2	0	42.3		1.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	9	0	42.8		1.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	-	-	36.6		2.0		<0.0050	<0.0050	<0.0050	<0.010			

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
20	0	0	0	41.3		2.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	41.8		1.0		<0.0050	<0.0050	<0.0050	<0.010			
	12	0	0	38.8		1.0		<0.0050	<0.0050	<0.0050	<0.010			
21	0	110	1	38.4		1.0		<0.0050	<0.0050	<0.0050	<0.010			
	3	240	2	41.3		1.0		<0.0050	<0.0050	<0.0050	<0.010			
22	0	0	0	35.9		1.0		<0.0050	<0.0050	<0.0050	<0.010			
23	0	-	1	36.4				0.0062	0.0120	<0.0050	<0.010			
24	0	-	5	35.4				0.0054	0.0165	<0.0050	<0.010			
	3	-	80	36.6				0.0056	0.0130	<0.0050	<0.010			
25	0	-	-	36.6				<0.0050	0.0090	<0.0050	<0.010			
26	0	-	88	35.9				0.0056	0.0320	<0.0050	<0.010			
27	0	-	119	36.6				0.0062	0.0295	<0.0050	<0.010			
28	0	-	116	35.9				0.0056	0.0295	<0.0050	<0.010			

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1	0		<0.20	<0.20	0.0285	30.6	<0.010	<0.020	<0.020	<0.020	0.159	<0.10		8.40
2	0		<0.20	<0.20	0.0276	27.5	<0.010	<0.020	<0.020	<0.020	0.129	<0.10		7.21
3	0		<0.20	<0.20	0.0251	15.6	<0.010	<0.020	<0.020	<0.020	0.100	<0.10		3.09
4	0		<0.20	<0.20	0.0257	14.4	<0.010	<0.020	<0.020	<0.020	0.050	<0.10		2.63
	3		<0.20	<0.20	0.0232	14.1	<0.010	<0.020	<0.020	<0.020	0.036	<0.10		2.55
5														
6	0		<0.20	<0.20	0.0262	14.9	<0.010	<0.020	<0.020	<0.020	0.50	<0.10		2.55
	3		<0.20	<0.20	0.0242	14.1	<0.010	<0.020	<0.020	<0.020	0.32	<0.10		2.52
7	0		<0.20	<0.20	0.0246	14.5	<0.010	<0.020	<0.020	<0.020	0.056	<0.10		2.72
	3		<0.20	<0.20	0.0243	14.1	<0.010	<0.020	<0.020	<0.020	0.070	<0.10		2.57
8	0		<0.20	<0.20	0.0243	14.0	<0.010	<0.020	<0.020	<0.020	0.045	<0.10		2.52
	3		<0.20	<0.20	0.0240	14.4	<0.010	<0.020	<0.020	<0.020	0.040	<0.10		2.57
	12		<0.20	<0.20	0.0235	14.5	<0.010	<0.020	<0.020	<0.020	0.023	<0.10		2.56
9	0		<0.20	<0.20	0.0243	14.1	<0.010	<0.020	<0.020	<0.020	0.034	<0.10		2.46
	3		<0.20	<0.20	0.0240	13.8	<0.010	<0.020	<0.020	<0.020	0.029	<0.10		2.45
	12		<0.20	<0.20	0.0229	14.0	<0.010	<0.020	<0.020	<0.020	0.029	<0.10		2.49
10	0		<0.20	<0.20	0.0282	14.3	<0.010	<0.020	<0.020	<0.020	0.113	<0.10		2.54
	3		<0.20	<0.20	0.0243	14.0	<0.010	<0.020	<0.020	<0.020	0.041	<0.10		2.46
	12		<0.20	<0.20	0.0244	14.2	<0.010	<0.020	<0.020	<0.020	0.031	<0.10		2.46

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11	0		<0.20	<0.20	0.0250	13.1	<0.010	<0.020	<0.020	<0.020	0.162	<0.10		2.23
	3		<0.20	<0.20	0.0242	13.3	<0.010	<0.020	<0.020	<0.020	0.122	<0.10		2.26
12														
13	0		<0.20	<0.20	0.0252	14.2	<0.010	<0.020	<0.020	<0.020	0.077	<0.10		2.52
	3		<0.20	<0.20	0.0262	14.3	<0.010	<0.020	<0.020	<0.020	0.114	<0.10		2.58
14	0		<0.20	<0.20	0.0237	14.0	<0.010	<0.020	<0.020	<0.020	0.031	<0.10		2.53
	3		<0.20	<0.20	0.0248	14.2	<0.010	<0.020	<0.020	<0.020	0.038	<0.10		2.52
15	0		<0.20	<0.20	0.0244	14.2	<0.010	<0.020	<0.020	<0.020	0.027	<0.10		2.49
	3		<0.20	<0.20	0.0239	14.1	<0.010	<0.020	<0.020	<0.020	<0.020	<0.10		2.47
	12		<0.20	<0.20	0.0247	14.3	<0.010	<0.020	<0.020	<0.020	0.026	<0.10		2.53
16	0		<0.20	<0.20	0.0237	13.6	<0.010	<0.020	<0.020	<0.020	-	<0.10		2.39
	3		<0.20	<0.20	0.0243	13.9	<0.010	<0.020	<0.020	<0.020	0.081	<0.10		2.43
	12		<0.20	<0.20	0.0242	15.2	<0.010	<0.020	<0.020	<0.020	0.032	<0.10		2.54
17	0		0.29	<0.20	0.0244	12.5	<0.010	<0.020	<0.020	<0.020	0.140	<0.10		2.27
	3		0.32	<0.20	0.0246	12.2	<0.010	<0.020	<0.020	<0.020	0.255	<0.10		2.21
	12		0.20	<0.20	0.0238	13.8	<0.010	<0.020	<0.020	<0.020	0.273	<0.10		2.57
18	0		<0.20	<0.20	0.0232	12.6	<0.010	<0.020	<0.020	<0.020	0.153	<0.10		2.22
	3		<0.20	<0.20	0.0236	13.8	<0.010	<0.020	<0.020	<0.020	0.057	<0.10		2.60
	12		<0.20	<0.20	0.0246	13.8	<0.010	<0.020	<0.020	<0.020	0.129	<0.10		2.62

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
19	0		0.24	<0.20	0.0228	12.2	<0.010	<0.020	<0.020	<0.020	0.200	<0.10		2.21
	3		<0.20	<0.20	0.0229	13.6	<0.010	<0.020	<0.020	<0.020	0.052	<0.10		2.56
	12		<0.20	<0.20	0.0236	14.1	<0.010	<0.020	<0.020	<0.020	0.026	<0.10		2.61
20	0		0.28	<0.20	0.0228	11.8	<0.010	<0.020	<0.020	<0.020	0.022	<0.10		2.12
	3		<0.20	<0.20	0.0233	14.4	<0.010	<0.020	<0.020	<0.020	0.093	<0.10		2.51
	12		<0.20	<0.20	0.0248	15.4	<0.010	<0.020	<0.020	<0.020	0.050	<0.10		2.49
21	0		<0.20	<0.20	0.0245	13.1	<0.010	<0.020	<0.020	<0.020	0.279	<0.10		2.12
	3		0.21	<0.20	0.0257	13.2	<0.010	<0.020	<0.020	<0.020	0.304	<0.10		2.14
22	0		<0.20	<0.20	0.0241	13.6	<0.010	<0.020	<0.020	<0.020	0.101	<0.10		2.32
23	0		<0.20	<0.20	0.0249	12.5	<0.010	<0.020	<0.020	<0.020	0.294	<0.10		2.09
24	0		0.24	<0.20	0.0259	12.7	<0.010	<0.020	<0.020	<0.020	0.356	<0.10		2.13
	3		0.23	<0.20	0.0254	12.6	<0.010	<0.020	<0.020	<0.020	0.373	<0.10		2.14
25	0		0.23	<0.20	0.0252	12.7	<0.010	<0.020	<0.020	<0.020	0.305	<0.10		2.10
26	0		0.36	<0.20	0.0280	12.7	<0.010	<0.020	<0.020	<0.020	0.506	<0.10		2.19
27	0		0.36	<0.20	0.0289	13.2	<0.010	<0.020	<0.020	<0.020	0.505	<0.10		2.21
28	0		0.33	<0.20	0.0289	12.9	<0.010	<0.020	<0.020	<0.020	0.504	<0.10		2.21

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
1	0	0.0091	<0.20	3.39	<0.20	<0.10	<0.10	<0.10		<0.10	0.291	<0.010	<0.030	<0.020
2	0	0.0048	<0.20	3.11	<0.20	<0.10	<0.10	<0.10		<0.10	0.246	<0.010	<0.030	<0.020
3	0	<0.0040	<0.20	1.55	<0.20	<0.10	<0.10	<0.10		<0.10	0.0911	<0.010	<0.030	<0.020
4	0	0.0117	<0.20	1.33	<0.20	<0.10	<0.10	<0.10		<0.10	0.0776	<0.010	<0.030	0.027
	3	0.0102	<0.20	1.23	<0.20	<0.10	<0.10	<0.10		<0.10	0.0753	<0.010	<0.030	<0.020
5														
6	0	0.0749	<0.20	1.33	<0.20	<0.10	<0.10	<0.10		<0.10	0.0766	<0.010	<0.030	0.033
	3	0.0097	<0.20	1.24	<0.20	<0.10	<0.10	<0.10		<0.10	0.0755	<0.010	<0.030	<0.020
7	0	0.0091	<0.20	1.33	<0.20	<0.10	<0.10	<0.10		<0.10	0.0772	<0.010	<0.030	<0.020
	3	0.0113	<0.20	1.27	<0.20	<0.10	<0.10	<0.10		<0.10	0.0755	<0.010	<0.030	<0.020
8	0	0.0225	<0.20	1.29	<0.20	<0.10	<0.10	<0.10		<0.10	0.0754	<0.010	<0.030	<0.020
	3	0.0193	<0.20	1.38	<0.20	<0.10	<0.10	<0.10		<0.10	0.0763	<0.010	<0.030	0.039
	12	0.0078	<0.20	1.26	<0.20	<0.10	<0.10	<0.10		<0.10	0.0755	<0.010	<0.030	<0.020
9	0	0.0117	<0.20	1.31	<0.20	<0.10	<0.10	<0.10		<0.10	0.0751	<0.010	<0.030	0.044
	3	0.0072	<0.20	1.23	<0.20	<0.10	<0.10	<0.10		<0.10	0.0743	<0.010	<0.030	<0.020
	12	0.0072	<0.20	1.20	<0.20	<0.10	<0.10	<0.10		<0.10	0.0743	<0.010	<0.030	<0.020
10	0	0.0278	<0.20	1.14	<0.20	<0.10	<0.10	<0.10		<0.10	0.0777	<0.010	<0.030	0.024
	3	0.0076	<0.20	1.17	<0.20	<0.10	<0.10	<0.10		<0.10	0.0760	<0.010	<0.030	0.023
	12	0.0081	<0.20	1.17	<0.20	<0.10	<0.10	<0.10		<0.10	0.0771	<0.010	<0.030	<0.020

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
11	0	0.0160	<0.20	1.09	<0.20	<0.10	<0.10	<0.10		<0.10	0.0704	<0.010	<0.030	<0.020
	3	0.0104	<0.20	1.09	<0.20	<0.10	<0.10	<0.10		<0.10	0.0703	<0.010	<0.030	<0.020
12														
13	0	0.100	<0.20	1.24	<0.20	<0.10	<0.10	<0.10		<0.10	0.0780	<0.010	<0.030	<0.020
	3	0.119	<0.20	1.14	<0.20	<0.10	<0.10	<0.10		<0.10	0.0778	<0.010	<0.030	<0.020
14	0	0.0085	<0.20	1.06	<0.20	<0.10	<0.10	<0.10		<0.10	0.0761	<0.010	<0.030	<0.020
	3	0.0107	<0.20	1.12	<0.20	<0.10	<0.10	<0.10		<0.10	0.0757	<0.010	<0.030	<0.020
15	0	0.0085	<0.20	1.21	<0.20	<0.10	<0.10	<0.10		<0.10	0.0792	<0.010	<0.030	<0.020
	3	0.0079	<0.20	1.13	<0.20	<0.10	<0.10	<0.10		<0.10	0.0782	<0.010	<0.030	<0.020
	12	0.0093	<0.20	1.13	<0.20	<0.10	<0.10	<0.10		<0.10	0.0771	<0.010	<0.030	0.040
16	0	0.0191	<0.20	1.11	<0.20	<0.10	<0.10	<0.10		<0.10	0.0879	<0.010	<0.030	0.023
	3	0.0112	<0.20	1.09	<0.20	<0.10	<0.10	<0.10		<0.10	0.0764	<0.010	<0.030	<0.020
	12	0.0100	<0.20	1.12	<0.20	<0.10	<0.10	<0.10		<0.10	0.0780	<0.010	<0.030	0.045
17	0	0.0235	<0.20	0.97	<0.20	<0.10	<0.10	<0.10		<0.10	0.0807	<0.010	<0.030	<0.020
	3	0.0274	<0.20	1.03	<0.20	<0.10	<0.10	<0.10		<0.10	0.0802	0.010	<0.030	<0.020
	12	0.0153	<0.20	1.12	<0.20	<0.10	<0.10	<0.10		<0.10	0.0930	<0.010	<0.030	<0.020
18	0	0.0183	<0.20	1.06	<0.20	<0.10	<0.10	<0.10		<0.10	0.0836	<0.010	<0.030	<0.020
	3	0.0153	<0.20	1.15	<0.20	<0.10	<0.10	<0.10		<0.10	0.0955	<0.010	<0.030	<0.020
	12	0.0218	<0.20	1.13	<0.20	<0.10	<0.10	<0.10		<0.10	0.0942	<0.010	<0.030	<0.020

APPENDIX II TABLE 5 LAKE LABERGE WATER QUALITY DATA - JULY 10-12, 1978 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
19	0	0.0217	<0.20	0.97	<0.20	<0.10	<0.10	<0.10		<0.10	0.0791	<0.010	<0.030	<0.020
	3	0.0131	<0.20	1.14	<0.20	<0.10	<0.10	<0.10		<0.10	0.0927	<0.010	<0.030	<0.020
	12	0.0257	<0.20	1.16	<0.20	<0.10	<0.10	<0.10		<0.10	0.0945	<0.010	<0.030	0.039
20	0	0.0208	<0.20	1.06	<0.20	<0.10	<0.10	<0.10		<0.10	0.0782	<0.010	<0.030	<0.020
	3	0.0268	<0.20	1.16	<0.20	<0.10	<0.10	<0.10		<0.10	0.0895	<0.010	<0.030	0.032
	12	0.0230	<0.20	1.26	<0.20	<0.10	<0.10	<0.10		<0.10	0.0756	<0.010	<0.030	0.029
21	0	0.0248	<0.20	1.12	<0.20	<0.10	<0.10	<0.10		<0.10	0.0688	<0.010	<0.030	<0.020
	3	0.0220	<0.20	1.12	<0.20	<0.10	<0.10	<0.10		<0.10	0.0688	<0.010	<0.030	<0.020
22	0	0.0147	<0.20	1.15	<0.20	<0.10	<0.10	<0.10		<0.10	0.0704	<0.010	<0.030	<0.020
23	0	0.0212	<0.20	1.11	<0.20	<0.10	<0.10	<0.10		<0.10	0.0652	<0.010	<0.030	<0.020
24	0	0.0248	<0.20	1.14	<0.20	<0.10	<0.10	<0.10		<0.10	0.0640	<0.010	<0.030	<0.020
	3	0.0222	<0.20	1.07	<0.20	<0.10	<0.10	<0.10		<0.10	0.0658	<0.010	<0.030	<0.020
25	0	0.0204	<0.20	1.15	<0.20	<0.10	<0.10	<0.10		<0.10	0.0658	<0.010	<0.030	<0.020
26	0	0.0273	<0.20	1.15	<0.20	<0.10	<0.10	<0.10		<0.10	0.0662	<0.010	<0.030	<0.020
27	0	0.0261	<0.20	1.15	<0.20	<0.10	<0.10	<0.10		<0.10	0.0680	<0.010	<0.030	<0.020
28	0	0.0293	<0.20	1.12	<0.20	<0.10	<0.10	<0.10		<0.10	0.0667	<0.010	<0.030	<0.020

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978
(1) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATUR-ATION	IN SITU pH	LAB pH	IN SITU CONDUC-TIVITY (umhos/cm)	LAB CONDUC-TIVITY (umhos/cm)	COLOUR (colour units)	TURB-IDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1	0	19.0	10.01	103	8.20	8.2	370				<10	305
2	0	18.6	10.43	106	7.90	8.1	144				<10	122
3	0	18.2	10.35	106	8.23	7.9	104				<10	88
4	0	17.1	10.15	102	8.10	7.9	82				<10	68
	3	13.9	10.29	96	7.82	7.9	77				<10	69
5												
6	0	14.3	10.20	95	8.0	7.9	73				<10	63
	3	14.3	10.27	96	7.9	7.9	74				<10	65
7	0	17.0	9.98	100	8.1	7.9	77				<10	63
	3	14.4	10.37	97	8.1	7.9	77				<10	69
8	0	15.3	10.38	99	8.02	7.9	73				<10	64
	3	14.1	10.59	99	8.08	7.9	72				<10	64
	12	11.4	10.96	96	8.00	7.9	74				<10	66
9	0	14.7	10.45	99	7.97	7.9	71				<10	63
	3	14.2	10.65	99	8.04	7.9	71				<10	64
	12	11.1	10.83	95	7.98	7.9	75				<10	66

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
10	0	15.0	10.41	99	7.72	7.9	70				<10	59
	3	14.5	10.31	96	7.79	7.9	70				<10	60
	12	11.6	10.98	99	7.96	8.0	74				<10	62
11	0	16.4	10.40	101	7.08	7.9	63				<10	59
	3	15.9	10.22	99	7.51	7.9	68				<10	61
12												
13	0	18.9	9.70	100	9.05	8.0	82				<10	
	3	13.8	10.40	97	8.31	8.0	72				<10	
14	0	16.8	9.90	99	8.30	7.9	74				<10	
	3	14.7	10.09	96	8.28	7.9	72				<10	
15	0	16.8	9.59	96	8.29	7.9	76				<10	
	3	12.3	10.28	92	8.0	7.9	73				<10	
	12	11.3	10.50	92	8.30	7.9	72				<10	
16	0	18.3	9.60	98	8.17	7.9	69				<10	
	3	13.9	10.13	94	8.23	7.9	72				<10	
	12	10.7	10.45	90	8.35	7.9	73				<10	
17	0	17.9	9.62	98	8.10	7.9	67				<10	
	3	16.0	9.68	100	8.17	7.9	67				<10	
	12	10.3	10.41	89	8.20	7.9	73				<10	

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
18	0	14.4	10.44	83	7.40	7.9	60				<10	
	3	13.8	10.00	80	7.38	7.9	73				<10	
	12	10.9	10.14	81	7.05	7.9	75				<10	
19	0	14.0	10.48	83	7.41	7.9	73				<10	
	3	13.0	10.35	84	7.98	7.9	73				<10	
	12	11.1	10.50	80	7.48	7.9	74				<10	
20	0	17.2	9.91	80	8.20	7.9	72				<10	
	3	14.7	9.80	80	8.07	7.9	70				<10	
	12	11.2	9.80	80	7.88	7.9	73				<10	
21	0	17.7	9.44	79	8.62	7.9	67				<10	
	3	16.0	9.18	75	8.13	7.9	68				<10	
22	0	17.0	9.66	79	7.86	7.9	68				<10	58
23	0	16.7	9.65	78	7.67	7.8	64				<10	58
24	0	15.8	9.21	74	7.51	7.9	60				<10	62
	3	15.4	9.62	76	7.48	7.7	62				<10	59
25	0	16.2	9.49	75	7.25	7.7	59				<10	56
26	0	15.4	9.42	77	7.83	7.7	63				<10	63

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(1) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
27	0	15.4	9.53	80	8.03	7.7	63				<10	65
28	0	15.9	9.58	78	7.83	7.7	62				<10	66

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1	0	200	20	171	230	4.0				<0.0050	<0.010			
2	0	100	88	68.8	79.2	3.0				<0.0050	<0.010			
3	0	300	90	51.7	59.3	2.0				<0.0050	<0.010			
4	0	0	0	42.0	42.6	2.0				<0.0050	<0.010			
	3	0	0	42.0	45.3	3.0				<0.0050	<0.010			
5														
6	0	0	0	39.0	42.6	2.0				<0.0050	<0.010			
	3	0	0	39.0	43.0	2.0				<0.0050	<0.010			
7	0	0	0	41.5	45.3	3.0				<0.0050	<0.010			
	3	0	0	40.9	45.4	3.0				<0.0050	<0.010			
8	0	0	0	40.5	43.4	3.0				<0.0050	<0.010			
	3	0	0	40.0	43.3	4.0				<0.0050	<0.010			
	12	0	0	40.9	46.0	2.0				<0.0050	<0.010			

APPENDIX II - TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9	0	0	0	39.5	42.3	2.0				<0.0050	<0.010			
	3	0	0	39.5	41.0	2.0				<0.0050	<0.010			
	12	0	0	40.9	44.6	2.0				<0.0050	<0.010			
10	0			38.6	40.3	2.0				<0.0050	<0.010			
	3			39.0	42.3	2.0				<0.0050	<0.010			
	12			40.0	47.9	2.0				<0.0050	<0.010			
11	0	192	4	35.1	34.3	2.0				<0.0050	<0.010			
	3	372	6	71.2	37.9	2.0				<0.0050	<0.010			
12														
13	0	0	0	40.6	44.6	2.0				<0.0050	<0.010			
	3	0	0	40.6	41.9	2.0				<0.0050	<0.010			
14	0	0	0	39.7	43.4	2.0				<0.0050	<0.010			
	3	0	0	39.7	41.6	2.0				<0.0050	<0.010			
15	0	0	0	38.5	40.5	2.0				<0.0050	<0.010			
	3	0	0	39.2	41.6	2.0				<0.0050	<0.010			
	12	3	0	39.7	41.9	2.0				<0.0050	<0.010			

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
16	0	0	0	35.5	38.1	2.0				<0.0050	<0.010			
	3	2	0	39.4	46.4	2.0				<0.0050	<0.010			
	12	4	0	40.2	41.6	2.0				<0.0050	<0.010			
17	0	40	0	34.8	39.0	2.0				<0.0050	<0.010			
	3	500	3	34.8	38.4	3.0				<0.0050	<0.010			
	12	30	0	40.2	42.2	2.0				<0.0050	<0.010			
18	0	0	0	40.2	43.6	2.0				<0.0050	<0.010			
	3	0	0	39.7	41.6	2.0				<0.0050	<0.010			
	12	3	0	40.2	42.1	2.0				<0.0050	<0.010			
19	0	0	1	40.7	44.1	2.0				<0.0050	<0.010			
	3	1	0	40.2	42.4	2.0				<0.0050	<0.010			
	12	34	4	39.7	41.6	2.0				<0.0050	<0.010			
20	0	0	0	36.8	40.7	2.0				<0.0050	<0.010			
	3	0	0	36.8	41.4	1.0				<0.0050	<0.010			
	12	120	0	39.2	41.9	2.0				<0.0050	<0.010			
21	0	0	0	35.5	38.0	2.0				<0.0050	<0.010			
	3	385	4	36.3	38.1	2.0				<0.0050	<0.010			

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
22	0	14	1	35.6	41.8	1.0				<0.0050	<0.010			
23	0	38	1	36.1	38.4	1.0				<0.0050	<0.010			
24	0	323	72	34.6	40.1	2.0				<0.0050	<0.010			
	3	275	31	35.1	38.7	2.0				<0.0050	<0.010			
25	0	140	15	34.6	36.5	2.0				<0.0050	<0.010			
26	0	73	100	31.6	33.7	2.0				<0.0050	<0.010			
27	0	94	0	31.2	40.0	2.0				<0.0050	<0.010			
28	0	304	97	31.2	37.5	2.0				<0.0050	<0.010			

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1	0					58.3								20.5
2	0					21.3								6.31
3	0					16.9								4.16
4	0					13.4								2.22
	3					14.0								2.50
5														
6	0					13.6								2.10
	3					13.3								2.38
7	0					14.3								2.34
	3					14.2								2.42
8	0					13.6								2.30
	3					14.2								1.90
	12					14.3								2.50
9	0					13.2								2.26
	3					12.7								2.26
	12					14.0								2.34
10	0					12.4								2.26
	3					13.4								2.14
	12					14.8								2.66

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11	0					11.2								1.54
	3					11.8								2.06
12														
13	0					14.0								2.35
	3					13.0								2.30
14	0					14.0								2.04
	3					13.0								2.23
15	0					13.0								1.94
	3					13.0								2.23
	12					13.0								2.28
16	0					12.0								1.97
	3					15.0								2.18
	12					13.0								2.23
17	0					12.6								1.83
	3					12.0								2.04
	12					13.0								2.37
18	0					14.0								2.11
	3					13.0								2.23
	12					13.0								2.33

APPENDIX II TABLE 6 LAKE LABERGE WATER QUALITY DATA - JULY 31-AUGUST 2, 1978 (continued)
(III) Extractable Metals - Ag to Mg*

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
19	0					14.0								2.23
	3					13.0								2.42
	12					13.0								2.21
20	0					13.0								1.99
	3					13.0								2.16
	12					13.0								2.30
21	0					12.0								1.94
	3					12.0								1.97
22	0					12.7								2.46
23	0					11.8								2.18
24	0					12.6								2.10
	3					12.7								1.70
25	0					11.7								1.78
26	0					11.1								1.46
27	0					12.7								2.02
28	0					12.0								1.82

* No data was obtained for Extractable Metals - Mg to Zn for this date.

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1	0	-	10.46	97	-		-				16	
2	0	14.2	10.24	95	8.20		109				<10	
3	0	14.0	10.27	96	8.45		72				<10	
4	0	14.0	10.45	97	8.25		70			0.51	<10	64
	3	14.0	9.78	91	8.42		70			0.75	<10	65
5												
6	0	14.0	10.02	93	-		70				<10	
	3	13.8	10.23	95	-		70				<10	
7	0	13.9	10.14	95	8.38		75				<10	
	3	14.0	11.02	103	8.35		79				<10	
8	0	13.8	10.20	95	8.52		70				<10	
	3	13.8	10.33	96	8.50		70				<10	
	12	13.5	9.75	91	8.45		72				<10	
9	0	13.2	10.11	92	8.00		69			0.62	<10	63
	3	13.5	10.60	97	8.05		70			0.69	<10	64
	12	13.8	9.96	93	8.15		72			0.73	<10	63

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATUR-ATION	IN SITU pH	LAB pH	IN SITU CONDUC-TIVITY (umhos/cm)	LAB CONDUC-TIVITY (umhos/cm)	COLOUR (colour units)	TURB-IDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
10	0	13.3	9.83	90	7.70		69			0.72	<10	62
	3	13.3	10.05	92	8.10		70			0.58	<10	62
	12	13.5	9.95	93	8.18		72			0.59	<10	62
11	0	12.8	10.20	92	7.75		69			0.70	<10	63
	3	13.0	10.12	94	8.10		70			5.1	<10	64
12												
13	0	13.1	9.70	89	7.50		70				<10	
	3	13.0	9.70	89	7.75		70				<10	
14	0	13.0	9.61	88	7.89		70				<10	
	3	13.0	9.57	87	8.2		70				<10	
15	0	13.6	6.51	61	8.10		68				<10	
	3	13.8	9.53	89	8.38		69				<10	
	12	13.6	10.61	99	8.22		70				<10	
16	0	13.9	10.23	95	8.05		68				<10	
	3	13.8	10.27	97	8.25		69				<10	
	12	13.5	9.59	89	8.15		70				<10	
17	0	14.0	10.17	87	8.00		63				<10	
	3	13.5	10.45	88	8.25		63				<10	
	12	13.5	9.61	99	8.28		69				<10	

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(i) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
18	0	13.2	9.51	93	7.89	8.0	68				<10	55
	3	13.2	9.65	96	7.89	7.9	65				<10	56
	12	14.0	10.56	95	7.90	8.0	67				<10	64
19	0	13.0	10.19	93	8.20	7.9	65				<10	56
	3	14.0	10.25	96	8.10	8.0	67				<10	57
	12	14.0	10.19	95	7.40	8.0	67				<10	60
20	0	14.0	11.24	105	7.39	8.0	62				<10	56
	3	15.0	10.76	102	7.40	7.9	67				<10	58
	12	13.5	9.46	88	7.91	8.0	67				<10	57
21	0	14.0	9.49	88	7.72	8.0	62				<10	57
	3	13.5	9.44	88	7.95	7.9	61				<10	63
22	0	13.7	9.99	93	7.98	8.0	65				<10	64
23	0	13.0	9.69	88	7.99	8.1	57				<10	58
24	0	13.6	9.91	92	8.01	8.0	68				<10	58
	3	13.2	9.66	88	7.50	7.9	57				<10	59
25	0	13.7	9.35	87	7.65	7.9	50				<10	62
26	0	13.2	9.64	88	7.68	7.8	59				<10	56

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
27	0	13.2	9.78	89	7.5	7.8	53				<10	61
28	0	13.8	9.44	88	7.4	7.9	49				<10	60

APPENDIX II - TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1	0	40	41	170	232	4.0	40.3				<0.0050	<0.010		
											<0.0050	<0.010		
2	0	0	7	57.0	71.0	1.0	13.0				<0.0050	<0.010		
											<0.0050	<0.010		
3	0	0	0	42.0	47.2	1.0	9.0				<0.0050	<0.010		
											<0.0050	<0.010		
4	0	0	0	40.2	47.3	2.0	9.0	<0.0050						
	3	0	0	40.2	47.0	2.0	9.0	<0.0050						
5											<0.0050	<0.010		
											<0.0050	<0.010		
6	0	0	0	40.0	45.3	1.0	9.0							
	3	0	0	40.0	45.2	1.0	9.0				<0.0050	<0.010		
7	0	0	0	41.5	53.0	1.0	9.0				<0.0050	<0.010		
	3	0	0	42.5	45.3	1.0	9.0				<0.0050	<0.010		
8	0	0	0	40.0	45.3	1.0	9.0				<0.0050	<0.010		
	3	0	0	40.0	44.8	1.0	9.0				<0.0050	<0.010		
	12	1	0	41.0	46.6	1.0	9.0				<0.0050	<0.010		

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9	0	0	0	38.2	44.9	2.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	38.2	44.9	2.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
	12	0	0	38.2	44.2	2.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
10	0	6	0	38.7	44.8	2.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	39.2	44.7	2.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
	12	0	0	39.2	44.5	2.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
11	0	0	0	39.2	44.9	3.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
	3	0	0	39.2	44.9	2.0	9.0	<0.0050	<0.0050	<0.0050	<0.010			
12										<0.0050	<0.010			
										<0.0050	<0.010			
13	0	3	0	41.0	46.9	1.0	9.0							
	3	0	0	41.0	47.2	2.0	8.0			<0.0050	<0.010			
14	0	2	0	40.5	46.5	1.0	9.0			<0.0050	<0.010			
	3	0	0	41.0	46.0	2.0	8.0			<0.0050	<0.010			
15	0	38	0	38.5	44.5	2.0	8.0			<0.0050	<0.010			
	3	39	0	38.5	44.1	1.0	8.0			<0.0050	<0.010			
	12	49	0	40.0	44.1	1.0	8.0			<0.0050	<0.010			

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
16	0	3	1	38.0	43.6	2.0	8.0			<0.0050	<0.010			
	3	39	0	38.0	44.4	2.0	8.0			<0.0050	<0.010			
	12	8	0	41.0	46.6	2.0	8.0			<0.0050	<0.010			
17	0	33	2	37.0	42.9	2.0	7.0			<0.0050	<0.010			
	3	316	6	37.0	42.0	2.0	7.0			<0.0050	<0.010			
	12	5110	10	36.5	42.4	3.0	7.0			<0.0050	<0.010			
18	0	0	0	41.0	44.3	1.0				<0.0050	<0.010			
	3	0	0	39.5	44.2	1.0				<0.0050	<0.010			
	12	4	0	40.0	44.9	1.0				<0.0050	<0.010			
19	0	63	0	38.5	43.8	2.0				<0.0050	<0.010			
	3	31	0	39.5	43.6	2.0				<0.0050	<0.010			
	12	8	1	39.0	45.1	1.0				<0.0050	<0.010			
20	0	119	3	39.0	42.6	2.0				<0.0050	<0.010			
	3	264	7	37.5	42.5	2.0				<0.0050	<0.010			
	12	90	3	37.5	44.5	1.0				<0.0050	<0.010			
21	0	300	6	38.0	47.6	2.0				<0.0050	<0.010			
	3	1400	7	37.0	42.4	2.0				<0.0050	<0.010			

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
22	0	4	0	39.5	44.9	1.0				<0.0050	<0.010			
23	0	306	20	37.5	40.7	2.0				<0.0050	<0.010			
24	0	1720	69	35.5	40.6	2.0				<0.0050	<0.010			
	3	1360	80	36.0	41.2	2.0				<0.0050	<0.010			
25	0	1900	38	34.2	41.2	1.0				<0.0050	<0.010			
26	0	1340	220	33.7	40.7	1.0				<0.0050	<0.010			
27	0	1660	11	34.2	40.2	1.0				<0.0050	<0.010			
28	0	2200	180	33.7	40.5	1.0				<0.0050	<0.010			

APPENDIX II - TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1	0		<0.20	<0.20	0.0313	55.1	<0.010	<0.020	<0.020	<0.020	0.072	<0.10		22.9
2	0		<0.20	<0.20	0.0251	20.1	<0.010	<0.020	<0.020	<0.020	<0.020	<0.10		5.06
3	0		0.22	<0.20	0.0264		<0.010	<0.020	<0.020	<0.020	0.254	<0.10		2.42
4	0		<0.20	<0.20	0.0254	15.0	<0.010	<0.020	<0.020	<0.020	0.028	<0.10		2.39
	3		<0.20	<0.20	0.0232	14.9	<0.010	<0.020	<0.020	<0.020	0.030	<0.10		2.38
5														
6	0		<0.20	<0.20	0.0256	14.9	<0.010	<0.020	<0.020	<0.020	0.065	<0.10		2.20
	3		<0.20	<0.20	0.0267	14.5	<0.010	<0.020	<0.020	<0.020	0.036	<0.10		2.19
7	0		<0.20	<0.20	0.0244	16.2	<0.010	<0.020	<0.020	<0.020	0.033	<0.10		3.04
	3		<0.20	<0.20	0.0233	14.5	<0.010	<0.020	<0.020	<0.020	0.028	<0.10		2.21
8	0		<0.20	<0.20	0.0251	14.5	<0.010	<0.020	<0.020	<0.020	0.083	<0.10		2.22
	3		<0.20	<0.20	0.0231	14.3	<0.010	<0.020	<0.020	<0.020	0.044	<0.10		2.20
	12		<0.20	<0.20	0.0241	14.9	<0.010	<0.020	<0.020	<0.020	0.039	<0.10		2.29
9	0		<0.20	<0.20	0.0232	14.3	<0.010	<0.020	<0.020	<0.020	0.034	<0.10		2.24
	3		<0.20	<0.20	0.0240	14.3	<0.010	<0.020	<0.020	<0.020	0.046	<0.10		2.22
	12		<0.20	<0.20	0.0233	14.1	<0.010	<0.020	<0.020	<0.020	0.045	<0.10		2.18
10	0		<0.20	<0.20	0.0253	14.3	<0.010	<0.020	<0.020	<0.020	0.075	<0.10		2.21
	3		<0.20	<0.20	0.0234	14.3	<0.010	<0.020	<0.020	<0.020	0.036	<0.10		2.19
	12		<0.20	<0.20	0.0234	14.2	<0.010	<0.020	<0.020	<0.020	0.038	<0.10		2.19

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
11	0		<0.20	<0.20	0.0244	14.3	<0.010	<0.020	<0.020	<0.020	0.060	<0.10		2.23
	3		<0.20	<0.20	0.0240	14.3	<0.010	<0.020	<0.020	<0.020	0.029	<0.10		2.23
	12													
12														
13	0		<0.20	<0.20	0.0256	14.9	<0.010	<0.020	<0.020	<0.020	0.060	<0.10		2.36
	3		<0.20	<0.20	0.0263	15.0	<0.010	<0.020	<0.020	<0.020	0.069	<0.10		2.37
14	0		<0.20	<0.20	0.0302	14.8	<0.010	<0.020	<0.020	<0.020	0.139	<0.10		2.31
	3		<0.20	<0.20	0.0252	14.7	<0.010	<0.020	<0.020	<0.020	0.070	<0.10		2.25
15	0		<0.20	<0.20	0.0248	14.3	<0.010	<0.020	<0.020	<0.020	0.068	<0.10		2.14
	3		<0.20	<0.20	0.0238	14.1	<0.010	<0.020	<0.020	<0.020	0.069	<0.10		2.15
	12		<0.20	<0.20	0.0237	14.1	<0.010	<0.020	<0.020	<0.020	0.078	<0.10		2.16
16	0		<0.20	<0.20	0.0242	14.0	<0.010	<0.020	<0.020	<0.020	0.071	<0.10		2.11
	3		<0.20	<0.20	0.0245	14.2	<0.010	<0.020	<0.020	<0.020	0.068	<0.10		2.17
	12		<0.20	<0.20	0.0248	14.9	<0.010	<0.020	<0.020	<0.020	0.028	<0.10		2.29
17	0		<0.20	<0.20	0.0250	13.8	<0.010	<0.020	<0.020	<0.020	0.142	<0.10		2.24
	3		<0.20	<0.20	0.0251	13.5	<0.010	<0.020	<0.020	<0.020	0.154	<0.10		2.02
	12		<0.20	<0.20	0.0255	13.6	<0.010	<0.020	<0.020	<0.020	0.151	<0.10		2.06
18	0		<0.20	<0.20	0.0238	14.2	<0.010	<0.020	<0.020	<0.020	0.048	<0.10		2.15
	3		<0.20	<0.20	0.0230	14.1	<0.010	<0.020	<0.020	<0.020	0.054	<0.10		2.20
	12		<0.20	<0.20	0.0241	14.3	<0.010	<0.020	<0.020	<0.020	0.090	<0.10		2.22

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
19	0		<0.20	<0.20	0.0252	14.0	<0.010	<0.020	<0.020	<0.020	0.077	<0.10		2.14
	3		<0.20	<0.20	0.0233	13.9	<0.010	<0.020	<0.020	<0.020	0.076	<0.10		2.15
	12		<0.20	<0.20	0.0248	14.4	<0.010	<0.020	<0.020	<0.020	0.091	<0.10		2.21
20	0		<0.20	<0.20	0.0237	13.6	<0.010	<0.020	<0.020	<0.020	0.132	<0.10		2.09
	3		<0.20	<0.20	0.0238	13.6	<0.010	<0.020	<0.020	<0.020	0.133	<0.10		2.08
	12		<0.20	<0.20	0.0233	14.2	<0.010	<0.020	<0.020	<0.020	0.089	<0.10		2.20
21	0		<0.20	<0.20	0.0246	15.6	<0.010	<0.020	<0.020	<0.020	0.192	<0.10		2.09
	3		<0.20	<0.20	0.0246	13.6	<0.010	<0.020	<0.020	<0.020	0.209	<0.10		2.04
22	0		<0.20	<0.20	0.0231	14.3	<0.010	<0.020	<0.020	<0.020	0.047	<0.10		2.24
23	0		<0.20	<0.20	0.0245	13.0	<0.010	<0.020	<0.020	<0.020	0.190	<0.10		1.99
24	0		<0.20	<0.20	0.0237	13.0	<0.010	<0.020	<0.020	<0.020	0.184	<0.10		1.98
	3		<0.20	<0.20	0.0255	13.2	<0.010	<0.020	<0.020	<0.020	0.159	<0.10		2.00
25	0		<0.20	<0.20	0.0252	13.2	<0.010	<0.020	<0.020	<0.020	0.216	<0.10		1.99
26	0		<0.20	<0.20	0.0252	13.1	<0.010	<0.020	<0.020	<0.020	0.181	<0.10		1.94
27	0		<0.20	<0.20	0.0247	12.9	<0.010	<0.020	<0.020	<0.020	0.190	<0.10		1.93
28	0		0.22	<0.20	0.0244	13.0	<0.010	<0.020	<0.020	<0.020	0.193	<0.10		1.96

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
1	0	0.0944	<0.20	11.2	<0.20	<0.10	<0.10	<0.10	4.55	<0.10	0.655	<0.010	<0.030	<0.020
2	0	0.0400	<0.20	2.54	<0.20	<0.10	<0.10	<0.10	2.00	<0.10	0.149	<0.010	<0.030	<0.020
3	0	0.0794	<0.20	1.46	<0.20	<0.10	<0.10	<0.10	2.00	<0.10	0.0791	<0.010	<0.030	<0.020
4	0	0.0783	<0.20	1.40	<0.20	<0.10	<0.10	<0.10	1.71	<0.10	0.0787	<0.010	<0.030	<0.020
	3	0.0774	<0.20	1.40	<0.20	<0.10	<0.10	<0.10	1.71	<0.10	0.0788	<0.010	<0.030	<0.020
5														
6	0	0.0960	<0.20	1.40	<0.20	<0.10	<0.10	<0.10	1.73	<0.10	0.0728	<0.010	<0.030	0.022
	3	0.124	<0.20	1.40	<0.20	<0.10	<0.10	<0.10	1.72	<0.10	0.0728	<0.010	<0.030	<0.020
7	0	0.0766	<0.20	1.76	<0.20	<0.10	<0.10	<0.10	1.80	<0.10	0.0960	<0.010	<0.030	<0.020
	3	0.0714	<0.20	1.40	<0.20	<0.10	<0.10	<0.10	1.72	<0.10	0.0749	<0.010	<0.030	<0.020
8	0	0.162	<0.20	1.39	<0.20	<0.10	<0.10	<0.10	1.77	<0.10	0.0735	<0.010	<0.030	0.030
	3	0.0803	<0.20	1.33	<0.20	<0.10	<0.10	<0.10	1.70	<0.10	0.0728	<0.010	<0.030	<0.020
	12	0.0894	<0.20	1.40	<0.20	<0.10	<0.10	<0.10	1.71	<0.10	0.0757	<0.010	<0.030	<0.020
9	0	0.0825	<0.20	1.28	<0.20	<0.10	<0.10	<0.10	1.68	<0.10	0.0734	<0.010	<0.030	<0.020
	3	0.122	<0.20	1.34	<0.20	<0.10	<0.10	<0.10	1.70	<0.10	0.0744	<0.010	<0.030	<0.020
	12	0.0782	<0.20	1.30	<0.20	<0.10	<0.10	<0.10	1.69	<0.10	0.0732	<0.010	<0.030	<0.020
10	0	0.0906	<0.20	1.42	<0.20	<0.10	<0.10	<0.10	1.76	<0.10	0.0731	<0.010	<0.030	0.022
	3	0.0773	<0.20	1.40	<0.20	<0.10	<0.10	<0.10	1.74	<0.10	0.0773	<0.010	<0.030	<0.020
	12	0.0795	<0.20	1.36	<0.20	<0.10	<0.10	<0.10	1.74	<0.10	0.0795	<0.010	<0.030	<0.020

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
11	0	0.202	<0.20	1.46	<0.20	<0.10	<0.10	<0.10	1.72	<0.10	0.0741	<0.010	<0.030	<0.020
	3	0.131	<0.20	1.39	<0.20	<0.10	<0.10	<0.10	1.72	<0.10	0.0742	<0.010	<0.030	<0.020
12														
13	0	0.0970	<0.20	1.39	<0.20	<0.10	<0.10	<0.10	1.70	<0.10	0.0783	<0.010	<0.030	0.034
	3	0.156	<0.20	1.42	<0.20	<0.10	<0.10	<0.10	1.69	<0.10	0.0785	<0.010	<0.030	0.084
14	0	0.164	<0.20	1.46	<0.20	<0.10	<0.10	<0.10	1.82	<0.10	0.0762	<0.010	<0.030	0.079
	3	0.139	<0.20	1.38	<0.20	<0.10	<0.10	<0.10	1.72	<0.10	0.0745	<0.010	<0.030	0.064
15	0	0.113	<0.20	1.34	<0.20	<0.10	<0.10	<0.10	1.76	<0.10	0.0719	<0.010	<0.030	0.049
	3	0.0768	<0.20	1.29	<0.20	<0.10	<0.10	<0.10	1.72	<0.10	0.0714	<0.010	<0.030	<0.020
	12	0.0837	<0.20	1.33	<0.20	<0.10	<0.10	<0.10	1.78	<0.10	0.0721	<0.010	<0.030	0.021
16	0	0.0824	<0.20	1.33	<0.20	<0.10	<0.10	<0.10	1.76	<0.10	0.0705	<0.010	<0.030	0.025
	3	0.0860	<0.20	1.34	<0.20	<0.10	<0.10	<0.10	1.76	<0.10	0.0719	<0.010	<0.030	0.025
	12	0.0917	<0.20	1.39	<0.20	<0.10	<0.10	<0.10	1.74	<0.10	0.0762	<0.010	<0.030	0.032
17	0	0.0791	<0.20	1.27	<0.20	<0.10	<0.10	<0.10	1.87	<0.10	0.0697	<0.010	<0.030	
	3	0.0834	<0.20	1.26	<0.20	<0.10	<0.10	<0.10	1.87	<0.10	0.0677	<0.010	<0.030	
	12	0.0842	<0.20	1.24	<0.20	<0.10	<0.10	<0.10	1.86	<0.10	0.0680	<0.010	<0.030	
18	0	0.145	<0.20	1.34	<0.20	<0.10	<0.10	<0.10	1.65	<0.10	0.0705	<0.010	<0.030	0.031
	3	0.0823	<0.20	1.27	<0.20	<0.10	<0.10	<0.10	1.63	<0.10	0.0725	<0.010	<0.030	0.020
	12	0.0909	<0.20	1.34	<0.20	<0.10	<0.10	<0.10	1.70	<0.10	0.0735	<0.010	<0.030	0.220

APPENDIX II TABLE 7 LAKE LABERGE WATER QUALITY DATA - AUGUST 22-25, 1978 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
19	0	0.0780	<0.20	1.37	<0.20	<0.10	<0.10	<0.10	1.71	<0.10	0.0695	<0.010	<0.030	0.037
	3	0.0819	<0.20	1.26	<0.20	<0.10	<0.10	<0.10	1.67	<0.10	0.0701	<0.010	<0.030	<0.020
	12	0.475	<0.20	1.37	<0.20	<0.10	<0.10	<0.10	1.71	<0.10	0.0718	<0.010	<0.030	0.198
20	0	0.0795	<0.20	1.27	<0.20	<0.10	<0.10	<0.10	1.78	<0.10	0.0687	<0.010	<0.030	0.023
	3	0.194	<0.20	1.30	<0.20	<0.10	<0.10	<0.10	1.76	<0.10	0.0697	<0.010	<0.030	0.071
	12	0.0726	<0.20	1.32	<0.20	<0.10	<0.10	<0.10	1.71	<0.10	0.0718	<0.010	<0.030	<0.020
21	0	0.0911	<0.20	1.22	<0.20	<0.10	<0.10	<0.10	1.83	<0.10	0.0698	<0.010	<0.030	0.341
	3	0.118	<0.20	1.29	<0.20	<0.10	<0.10	<0.10	1.89	<0.10	0.0708	<0.010	<0.030	0.050
22	0	0.0688	<0.20	1.27	<0.20	<0.10	<0.10	<0.10	1.65	<0.10	0.0690	<0.010	<0.030	<0.020
23	0	0.123	<0.20	1.22	<0.20	<0.10	<0.10	<0.10	1.80	<0.10	0.0694	<0.010	<0.030	0.060
24	0	0.0969	<0.20	1.20	<0.20	<0.10	<0.10	<0.10	1.77	<0.10	0.0684	<0.010	<0.030	0.038
	3	0.286	<0.20	1.23	<0.20	<0.10	<0.10	<0.10	1.75	<0.10	0.0694	<0.010	<0.030	0.161
25	0	-	<0.20	1.25	<0.20	<0.10	<0.10	<0.10		<0.10	0.0690	0.011	<0.030	<0.020
26	0	-	<0.20	1.23	<0.20	<0.10	<0.10	<0.10		<0.10	0.0688	<0.010	<0.030	0.141
27	0	-	<0.20	1.22	<0.20	<0.10	<0.10	<0.10		<0.10	0.0690	<0.010	<0.030	0.075
28	0	0	<0.20	1.25	<0.20	<0.10	<0.10	<0.10		<0.10	0.0647	<0.010	0.030	<0.020

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATUR-ATION	IN SITU pH	LAB pH	IN SITU CONDUC-TIVITY (umhos/cm)	LAB CONDUC-TIVITY (umhos/cm)	COLOUR (colour units)	TURB-IDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1												
2												
3												
4	0	13.1	10.33	105	7.94	7.8	72	97.5	5	2.0	<5	61
	1	13.0	10.39	105	8.12	7.7	73	97.5	5	2.4	<5	66
5												
6	0	12.0	10.42	104	8.12	7.7	70	97.0	5	1.5	<5	61
	1	11.9	10.61	105	8.12	7.7	70	98.0	5	1.9	<5	66
	12	11.3	10.50	112	8.10	7.8	70	92.5	5	2.5	<5	62
7	0	12.1	10.51	105	8.05	7.7	70	96.5	5	2.0	<5	66
	2	12.1	10.58	105	8.20	7.7	70	97.5	5	1.8	<5	67
8	0	13.0	10.50	106	8.08	7.7	69	96.5	5	1.4	<5	64
	1	12.5	10.61	105	8.02	7.8	70	97.0	5	2.1	<5	64
	15	7.2	10.68	94	7.90	7.7	67	98.2	5	2.8	<5	62
9	0	11.5	10.70	105	8.10	7.7	68	96.5	5	<1.0	<5	61
	1	11.1	10.70	104	8.10	7.7	67	96.5	5	1.4	<5	61
	8	11.0	10.67	103	8.10	7.8	68	97.5	5	1.5	<5	60

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATUR-ATION	IN SITU pH	LAB pH	IN SITU CONDUC-TIVITY (umhos/cm)	LAB CONDUC-TIVITY (umhos/cm)	COLOUR (colour units)	TURB-IDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
10	0	11.8	10.73	106	8.11	7.8	65	95.5	5	1.4	<5	61
	1	11.2	10.67	103	8.08	7.8	69	95.5	5	1.4	<5	60
	29	5.2	10.56	89	7.90	7.8	70	99.0	5	<1.0	<5	62
11	0	13.9	10.49	108	8.07	7.8	65	91.5	5	3.0	*	*
	1	13.9	10.45	108	8.12	7.8	60	91.8	5	2.6	<5	58
	9	13.1	10.47	106	7.81	7.8	61	96.5	5	2.8	<5	60
12												
13	0	11.7	10.31	102	8.11	*	70	*	*	*	*	*
	1	11.5	10.33	100	8.19	7.6	70	98	5	5.8	9	58
14	0	10.8	10.43	100	8.25	7.6	70	93	5	1.5	<5	58
	1	10.5	10.49	101	8.11	*	68	*	*	*	*	*
15	0	11.9	10.58	105	8.20	7.5	68	93	5	1.3	<5	60
	1	11.2	10.65	103	8.09	7.6	68	93	5	1.2	<5	58
	25	9.2	10.66	99	8.00	*	87	*	*	*	*	*
16	0		10.13		7.90	7.7		90	5	1.8	<5	57
	1		10.20		8.11	7.7		93	5	1.5	<5	58
	25		10.30		7.81	7.6		99	5	1.3	<5	58
17	0		9.96		8.15	7.7		90	5	3.5	<5	51
	1		10.03		8.13			*	*	*	*	*
	25		10.86		8.05	7.7		95	5	1.3	<5	55

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
18	0	10.1	10.48	100	8.20	7.7	69	95	5	1.8	<5	57
	1	10.0	10.50	100	8.15	7.7	68	95	5	1.7	<5	56
19	0	10.0	10.14	96	8.20	7.7	69	90	5	1.7	<5	53
	1	10.1	10.52	100	8.25	7.8	69	92	5	1.4	<5	55
	25	8.8	10.34	96	7.95	*	74	*	*	*	*	*
20	0	12.1	9.90	99	8.22	7.8	68	86	5	2.2	<5	51
	1	12.0	10.04	100	8.25	7.8	68	90	5	1.6	<5	53
	25	7.0	10.16	90		7.8	71	98	10	21	139	58
21	0	12.8	10.86	110		7.8	63	86	5	1.8	<5	55
	1	12.5	9.83	99		7.8	65	86	5	2.6	<5	53
	12	9.2	10.78	100	8.08	7.8	69	93	5	5.5	13	58
22	0	-	11.01		7.90	7.9		96.2	<5	<1.0	<5	56
	1	-	11.03		7.95	7.9	-	97.0	<5	<1.0	<5	62
	25	-	11.15		7.90	7.9		97.0	5	<1.0	<5	57
23	0	-	9.54		8.10	7.8	-	81.0	<5	3.2	<5	51
	1	-	9.69		8.00	7.8	-	82.0	<5	3.3	<5	49
24	0	-	9.66		8.04	7.8		80.0	<5	2.5	<5	50
	1	-	9.81		8.11	7.8	-	80.0	5	3.3	<5	52
25	0	-	9.46		8.10	7.8		81.0	5	2.8	<5	51
	1	-	9.44		8.08	7.8	-	81.0	<5	5.0	5	50

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
26	0	-	10.15		8.18	7.8	-	80.0	5	4.3	<5	48
27	0	-	9.47		8.09	7.8	-	80.0	<5	3.2	<5	50
28	0	-	9.65		8.01	7.8	-	80.0	<5	5.3	<5	52

- The conductivity meter ceased functioning and measurements for conductivity and temperature could no longer be taken.

NOTE: Samples 22 through 28 were delayed in transit and analyzed 4 1/2 months after collection so many of the results could be unreliable.

APPENDIX II TABLE 8 LAKE LABERGE-WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1														
2														
3														
4	0	0	0	42.0	43.3	2.0	10.0		0.0065	<0.0050	<0.010	<0.0050	4.65	<0.50
	1	0	0	41.0	43.3	1.0	10.0		0.0071	<0.0050	<0.010	<0.0050	4.40	<0.50
5														
6	0	0	0	41.5	43.2	2.0	10.0		<0.0050	<0.0050	<0.010	<0.0050	4.40	<0.50
	1	2	0	41.5	42.7	2.0	10.0		<0.0050	<0.0050	<0.010	<0.0050	4.40	<0.50
	12	1	0	40.5	42.8	2.0	10.0		0.0073	<0.0050	<0.010	<0.0050	4.00	<0.50
7	0	2	0	41.5	42.9	2.0	10.0		0.0080	<0.0050	<0.010	<0.0050	4.50	<0.50
	2	0	0	41.5	43.6	2.0	10.0		0.0056	<0.0050	<0.010	<0.0050	4.30	<0.50
8	0	0	0	41.1	42.3	2.0	10.0		0.0056	<0.0050	<0.010	<0.0050	4.25	<0.50
	1	0	0	41.7	42.4	1.0	10.0		0.0056	<0.0050	<0.010	<0.0050	4.40	<0.50
	15	0	0	42.0	43.8	<1.0	10.0		0.0089	<0.0050	0.012	0.0094	4.45	<0.50

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9	0	0	0	40.5	42.5	<1.0	10.0		0.0054	<0.0050	<0.010	<0.0050	4.40	<0.50
	1	0	0	42.0	41.9	2.0	9.0		0.0051	<0.0050	<0.010	0.0059	4.35	<0.50
	8	0	0	42.0	42.6	<1.0	10.0		0.0056	<0.0050	<0.010	0.0125	4.20	<0.50
10	0	5	0	41.0	41.6	<1.0	10.0		0.0053	<0.0050	<0.010	<0.0050	4.30	<0.50
	1	5	0	40.5	42.1	<1.0	9.0		0.0054	<0.0050	<0.010	0.0068	4.25	<0.50
	29	0	0	42.5	42.9	1.0	10.0		<0.0050	<0.0050	0.020	0.0057	4.50	<0.50
11	0	5	0	39.5	39.6	1.0	9.0		*	<0.0050	<0.010	<0.0050	4.15	<0.50
	1	2	0	40.0	39.9	1.0	9.0		0.0081	<0.0050	<0.010	<0.0050	4.60	<0.50
	9	3	50	41.5	40.2	1.0	9.0		0.0084	<0.0050	<0.010	<0.0050	4.35	<0.50
12														
13	0	2	2	*	42.8	3.0	10.0		0.0077	<0.0050	<0.010	0.0108	6.40	0.59
	1	0	2	41.2	44.2	1.0	10.0		0.0119	<0.0050	<0.010	<0.0050	6.20	<0.50
14	0	7	4	40.9	41.8	1.0	10.0		0.0066	<0.0050	<0.010	<0.0050	5.90	<0.50
	1	5	4	*	42.9	1.0	10.0		*	*	*	*	*	*

APPENDIX II . TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
15	0	2	0	40.7	40.9	1.0	10.0		0.0064	<0.0050	<0.010	0.0057	6.10	<0.50
	1	0	0	41.2	41.6	1.0	10.0		0.0072	<0.0050	<0.010	<0.0050	5.90	<0.50
	25	0	0	*	42.9	3.0	10.0		0.0096	<0.0050	0.013	0.0089	6.60	<0.50
16	0	4	0	39.7	40.4	<1.0	10.0		0.0067	<0.0050	<0.010	0.0060	5.70	<0.50
	1	5	0	39.7	41.1	1.0	10.0		0.0063	<0.0050	<0.010	<0.0050	5.70	<0.50
	25	1	0	42.5	44.5	4.0	14.0		0.0063	<0.0050	0.0319	<0.0050	6.95	<0.50
17	0	13	2	38.7	40.1	<1.0	10.0		0.0092	<0.0050	<0.010	<0.0050	5.60	<0.50
	1	61	4	*	38.7	<1.0	10.0		0.0103	<0.0050	<0.010	<0.0050	5.60	<0.50
	25	24	2	40.7	42.4	1.0	10.0		0.0075	<0.0050	<0.010	<0.0050	6.00	0.58
18	0	8	2	40.7	42.1	<1.0	10.0		0.0073	<0.0050	<0.010	0.0070	6.10	<0.50
	1	11	0	41.2	41.5	<1.0	10.0		0.0068	<0.0050	<0.010	<0.0050	6.10	<0.50
19	0	60	8	39.7	39.6	1.0	10.0		0.0081	<0.0050	<0.010	0.0061	5.60	<0.50
	1	7	4	41.2	40.7	1.0	10.0		0.0068	<0.0050	<0.010	<0.0050	5.90	<0.50
	25	1	0	*	42.8	1.0	10.0		*	*	*	*	*	
20	0	84	14	38.2	38.3	2.0	9.0		0.0095	<0.0050	<0.010	0.0064	5.60	<0.50
	1	70	2	39.2	39.6	3.0	10.0		0.0075	<0.0050	<0.010	0.0062	5.70	<0.50
	25	1	2	42.7	45.3	1.0	10.0		0.182	<0.0050	< .010	0.0084	6.60	<0.50

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
21	0	96	10	37.7	38.2	1.0	9.0		0.0093	<0.0050	<0.010	0.0070	5.50	<0.50
	1	102	0	37.7	38.3	1.0	9.0		0.0090	<0.0050	<0.010	0.0067	5.40	<0.50
	12	12	0	41.2	41.5	<1.0	10.0		0.0129	<0.0050	<0.010	0.0077	5.90	<0.50
22	0	8	0	43.7	49.8	<1.0	10.0		<0.0050	<0.0050	<0.010	<0.0050	6.70	<0.50
	1	0	0	43.6	49.7	<1.0	10.0		<0.0050	<0.0050	<0.010	<0.0050	6.30	<0.50
	25	0	0	43.9	49.9	<1.0	10.0		<0.0050	<0.0050	<0.010	<0.0050	6.40	<0.50
23	0	18	20	36.5	41.8	1.0	9.0		0.0088	<0.0050	<0.010	<0.0050	5.60	<0.50
	1	22	16	36.7	41.9	<1.0	9.0		0.0110	<0.0050	<0.010	<0.0050	5.40	<0.50
24	0	10	19	36.4	42.0	1.0	8.0		0.0110	<0.0050	<0.010	<0.0050	5.40	0.50
	1	42	40	36.5	41.7	1.0	9.0		0.0100	<0.0050	<0.010	<0.0050	5.45	0.54
25	0	38	29	37.1	42.2	<1.0	9.0		0.0095	<0.0050	<0.010	<0.0050	5.60	<0.50
	1	56	63	36.5	42.0	1.0	8.0		0.0130	<0.0050	<0.010	<0.0050	5.45	<0.50
26	0	6	38	36.2	41.7	<1.0	8.0		0.0120	<0.0050	<0.010	<0.0050	5.40	<0.50
27	0	6	26	35.7	42.1	<1.0	10.0		0.0160	<0.0050	<0.010	<0.0050	5.55	<0.50
28	0	30	36	36.3	42.1	<1.0	9.0		0.0130	<0.0050	<0.010	<0.0050	5.45	<0.50

* Not sufficient sample for analysis.

NOTE: Samples 22 through 28 were delayed in transit and analyzed 4 1/2 months after collection so many of the results could be unreliable.

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1														
2														
3														
4	0	<0.030	<0.090	<0.15	0.0274	13.5	<0.010	<0.015	<0.015	<0.010	0.059	<0.10	0.692	2.34
	1	<0.030	<0.090	<0.15	0.0278	13.5	<0.010	<0.015	<0.015	<0.010	0.069	<0.10	0.690	2.34
5														
6	0	<0.030	<0.090	<0.15	0.0272	13.5	<0.010	<0.015	<0.015	<0.010	0.037	<0.10	0.678	2.30
	1	<0.030	<0.090	<0.15	0.0272	13.3	<0.010	<0.015	<0.015	<0.010	0.039	<0.10	0.808	2.30
	12	<0.030	<0.090	<0.15	0.0274	13.3	<0.010	<0.015	<0.015	<0.010	0.062	<0.10	0.706	2.32
7	0	<0.030	<0.090	<0.15	0.0277	13.4	<0.010	<0.015	<0.015	<0.010	0.075	<0.10	0.690	2.30
	2	<0.030	0.091	<0.15	0.0291	13.6	<0.010	<0.015	<0.015	<0.010	0.106	<0.10	0.857	2.33
8	0	<0.030	<0.090	<0.15	0.0270	13.2	<0.010	<0.015	<0.015	<0.010	0.043	<0.10	0.683	2.26
	1	<0.030	<0.090	<0.15	0.0277	13.2	<0.010	<0.015	<0.015	<0.010	0.063	<0.10	0.742	2.28
	15	<0.030	<0.090	<0.15	0.0288	13.6	<0.010	<0.015	<0.015	<0.010	0.097	<0.10	0.714	2.39
9	0	<0.030	<0.090	<0.15	0.0271	13.3	<0.010	<0.015	<0.015	<0.010	0.028	<0.10	0.683	2.25
	1	<0.030	<0.090	<0.15	0.0273	13.1	<0.010	<0.015	<0.015	<0.010	0.034	<0.10	0.686	2.24
	8	<0.030	<0.090	<0.15	0.0279	13.3	<0.010	<0.015	<0.015	<0.010	0.046	<0.10	0.679	2.28

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
10	0	<0.030	<0.090	<0.15	0.0276	13.0	<0.010	<0.015	<0.015	<0.010	0.047	<0.10	0.672	2.21
	1	<0.030	<0.090	<0.15	0.0285	13.2	<0.010	<0.015	<0.015	<0.010	0.079	<0.10	0.691	2.23
	29	<0.030	<0.090	<0.15	0.0281	13.4	<0.010	<0.015	<0.015	<0.010	0.028	<0.10	0.738	2.29
11	0	<0.030	0.097	<0.15	0.0273	12.4	<0.010	<0.015	<0.015	<0.010	0.082	<0.10	0.688	2.09
	1	<0.030	0.105	<0.15	0.0274	12.5	<0.010	<0.015	<0.015	<0.010	0.090	<0.10	0.681	2.11
	9	<0.030	0.096	<0.15	0.0274	12.6	<0.010	<0.015	<0.015	<0.010	0.087	<0.10	0.696	2.12
12														
13	0		<0.090	<0.15	0.0572	13.2	<0.010	<0.015	<0.015	<0.010	0.055	<0.10	0.663	2.38
	1		0.146	<0.15	0.0648	13.6	<0.010	<0.015	<0.015	<0.010	0.210	<0.10	0.682	2.49
14	0		<0.090	<0.15	0.0563	12.9	<0.010	<0.015	<0.015	<0.010	0.045	<0.10	0.663	2.33
	1		0.098	<0.15	0.0601	13.2	<0.010	<0.015	<0.015	<0.010	0.111	<0.10	0.679	2.41
15	0		<0.090	<0.15	0.0547	12.6	<0.010	<0.015	<0.015	<0.010	0.034	<0.10	0.672	2.30
	1		<0.090	<0.15	0.0561	12.8	<0.010	<0.015	<0.015	<0.010	0.094	<0.10	0.683	2.34
	25		<0.090	<0.15	0.0596	13.2	<0.010	<0.015	<0.015	<0.010	0.144	<0.10	0.695	2.42
16	0		<0.090	<0.15	0.0542	12.5	<0.010	<0.015	<0.015	<0.010	0.052	<0.10	0.660	2.24
	1		<0.090	<0.15	0.0554	12.7	<0.010	<0.015	<0.015	<0.010	0.061	<0.10	0.666	2.28
	25		<0.090	<0.15	0.0575	13.7	<0.010	<0.015	<0.015	<0.010	0.030	<0.10	0.673	2.50
17	0		<0.090	<0.15	0.0559	12.5	<0.010	<0.015	<0.015	<0.010	0.111	<0.10	0.667	2.16
	1		<0.090	<0.15	0.0533	11.9	<0.010	<0.015	<0.015	<0.010	0.121	<0.10	0.662	2.17
	25		<0.090	<0.15	0.0571	13.1	<0.010	<0.015	<0.015	<0.010	0.075	<0.10	0.667	2.35

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
18	0		<0.090	<0.15	0.0551	13.0	<0.010	<0.015	<0.015	<0.010	0.046	<0.10	0.665	2.34
	1		<0.090	<0.15	0.0543	12.8	<0.010	<0.015	<0.015	<0.010	0.048	<0.10	0.672	2.31
19	0		0.109	<0.15	0.0558	12.2	<0.010	<0.015	<0.015	<0.010	0.123	<0.10	0.759	2.23
	1		<0.090	<0.15	0.0533	12.5	<0.010	<0.015	<0.015	<0.010	0.046	<0.10	0.664	2.31
	25		<0.090	<0.15	0.0568	13.1	<0.010	<0.015	<0.015	<0.010	0.041	<0.10	0.664	2.45
20	0		<0.090	<0.15	0.0534	11.8	<0.010	<0.015	<0.015	<0.010	0.127	<0.10	0.668	2.14
	1		0.093	<0.15	0.0545	12.2	<0.010	<0.015	<0.015	<0.010	0.118	<0.10	0.653	2.21
	25		0.298	<0.15	0.0723	13.8	<0.010	<0.015	<0.015	<0.010	0.404	<0.10	0.717	2.63
21	0		0.153	<0.15	0.0563	11.8	<0.010	<0.015	<0.015	<0.010	0.156	<0.10	0.669	2.12
	1		0.113	<0.15	0.0549	11.8	<0.010	<0.015	<0.015	<0.010	0.140	<0.10	0.655	2.15
	12		0.096	<0.15	0.0578	12.6	<0.010	<0.015	<0.015	<0.010	0.147	<0.10	0.695	2.43
22	0	<0.030	<0.090	<0.15	0.0257	15.4	<0.010	<0.015	<0.015	<0.010	0.037	<0.10		2.76
	1	<0.030	<0.090	<0.15	0.0260	15.3	<0.010	<0.015	<0.015	<0.010	0.051	<0.10		2.79
	25	<0.030	<0.090	<0.15	0.0262	15.4	<0.010	<0.015	<0.015	<0.010	0.058	<0.10		2.77
23	0	<0.030	0.466	<0.15	0.0288	13.0	<0.010	<0.015	<0.015	<0.010	0.407	<0.10		2.26
	1	<0.030	0.434	<0.15	0.0283	13.0	<0.010	<0.015	<0.015	<0.010	0.392	<0.10		2.30
24	0	<0.030	0.568	<0.15	0.0305	13.0	<0.010	<0.015	<0.015	<0.010	0.498	<0.10		2.31
	1	<0.030	0.586	<0.15	0.0303	12.9	<0.010	<0.015	<0.015	<0.010	0.500	<0.10		2.31
25	0	<0.030	0.509	<0.15	0.0297	13.1	<0.010	<0.015	<0.015	<0.010	0.447	<0.10		2.30
	1	<0.030	0.491	<0.15	0.0291	13.0	<0.010	<0.015	<0.015	<0.010	0.440	<0.10		2.31

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
26	0	<0.030	0.631	<0.15	0.031	12.9	<0.010	<0.015	<0.015	<0.010	0.551	<0.10		2.31
27	0	<0.030	0.682	<0.15	0.0319	13.0	<0.010	<0.015	<0.015	<0.010	0.588	<0.10		2.35
28	0	<0.030	0.633	<0.15	0.0313	13.0	<0.010	<0.015	<0.015	<0.010	0.555	<0.10		2.34

NOTE: Samples 22 through to 28 were delayed in transit and analyzed 4 1/2 months after collection so many of the results could be unreliable.

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
1														
2														
3														
4	0	0.0043	<0.15	1.22	<0.080	<0.080	<0.080	<0.15	1.53	<0.20	0.0737	<0.0085	<0.050	<0.020
	1	0.0205	<0.15	1.24	<0.080	<0.080	<0.080	<0.15	1.53	<0.20	0.0736	<0.0085	<0.050	<0.020
5														
6	0	0.0030	<0.15	1.26	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0728	<0.0085	<0.050	<0.020
	1	0.0674	<0.15	1.14	<0.080	<0.080	<0.080	<0.15	1.55	<0.20	0.0716	<0.0085	<0.050	<0.020
	12	0.0807	<0.15	1.21	<0.080	<0.080	<0.080	<0.15	1.53	<0.20	0.0723	<0.0085	<0.050	<0.020
7	0	0.0053	<0.15	1.19	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0714	<0.0085	<0.050	<0.020
	2	0.0843	<0.15	1.31	<0.080	<0.080	<0.080	<0.15	1.55	<0.20	0.0730	<0.0085	<0.050	<0.020
8	0	0.0059	<0.15	1.15	<0.080	<0.080	<0.080	<0.15	1.52	<0.20	0.0707	<0.0085	<0.050	<0.020
	1	0.0671	<0.15	1.20	<0.080	<0.080	<0.080	<0.15	1.53	<0.20	0.0709	<0.0085	<0.050	<0.020
	15	0.0139	<0.15	1.25	<0.080	<0.080	<0.080	<0.15	1.59	<0.20	0.0745	<0.0085	<0.050	<0.020
9	0	0.0060	<0.15	1.22	<0.080	<0.080	<0.080	<0.15	1.55	<0.20	0.0704	<0.0085	<0.050	<0.020
	1	0.0036	<0.15	1.18	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0697	<0.0085	<0.050	<0.020
	8	<0.0030	<0.15	1.26	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0707	<0.0085	<0.050	<0.020

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
10	0	<0.0030	<0.15	1.20	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0693	<0.0085	<0.050	<0.020
	1	0.0036	<0.15	1.30	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0706	<0.0085	<0.050	<0.020
	29	0.0226	<0.15	1.28	<0.080	<0.080	<0.080	<0.15	1.61	<0.20	0.0723	<0.0085	<0.050	<0.020
11	0	0.0037	<0.15	1.12	<0.080	<0.080	<0.080	<0.15	1.57	<0.20	0.0666	<0.0085	<0.050	<0.020
	1	0.0047	<0.15	1.16	<0.080	<0.080	<0.080	<0.15	1.52	<0.20	0.0668	<0.0085	<0.050	<0.020
	9	0.0042	<0.15	1.21	<0.080	<0.080	<0.080	<0.15	1.56	<0.20	0.0676	<0.0085	<0.050	<0.020
12														
13	0	0.0033	<0.15	1.19	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0740	<0.0085	<0.050	<0.020
	1	0.0072	<0.15	1.38	<0.080	<0.080	<0.080	<0.15	1.51	<0.20	0.0766	0.0094	<0.050	<0.020
14	0	<0.0030	<0.15	1.17	<0.080	<0.080	<0.080	<0.15	1.50	<0.20	0.0720	<0.0085	<0.050	<0.020
	1	0.0052	<0.15	1.25	<0.080	<0.080	<0.080	<0.15	*	<0.20	0.0740	<0.0085	<0.050	<0.020
15	0	<0.0030	<0.15	1.09	<0.080	<0.080	<0.080	<0.15	1.50	<0.20	0.0708	<0.0085	<0.050	<0.020
	1	0.0058	<0.15	1.11	<0.080	<0.080	<0.080	<0.15	1.47	<0.20	0.0716	<0.0085	<0.050	<0.020
	25	0.0083	<0.15	1.18	<0.080	<0.080	<0.080	<0.15	1.58	<0.20	0.0741	<0.0085	<0.050	<0.020
16	0	0.0035	<0.15	1.07	<0.080	<0.080	<0.080	<0.15	1.52	<0.20	0.0703	<0.0085	<0.050	<0.020
	1	0.0040	<0.15	1.16	<0.080	<0.080	<0.080	<0.15	1.49	<0.20	0.0719	<0.0085	<0.050	<0.020
	25	<0.0030	<0.15	1.26	<0.080	<0.080	<0.080	<0.15	1.62	<0.20	0.0777	<0.0085	<0.050	<0.020
17	0	0.0044	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.48	<0.20	0.0675	<0.0085	<0.050	<0.020
	1	0.0063	<0.15	0.86	<0.080	<0.080	<0.080	<0.15	1.52	<0.20	0.0640	<0.0085	<0.050	<0.020
	25	0.0042	<0.15	1.10	<0.080	<0.080	<0.080	<0.15	1.50	<0.20	0.0715	<0.0085	<0.050	<0.020

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
18	0	0.0064	<0.15	1.11	<0.080	<0.080	<0.080	<0.15	1.51	<0.20	0.0700	<0.0085	<0.050	<0.020
	1	0.0072	<0.15	1.04	<0.080	<0.080	<0.080	<0.15	1.50	<0.20	0.0699	<0.0085	<0.050	<0.020
19	0	0.0538	<0.15	0.888	<0.080	<0.080	<0.080	<0.15	1.48	<0.20	0.0661	0.0093	<0.050	<0.020
	1	0.0034	<0.15	0.901	<0.080	<0.080	<0.080	<0.15	1.53	<0.20	0.0673	<0.0085	<0.050	<0.020
	25	0.0044	<0.15	1.05	<0.080	<0.080	<0.080	<0.15	*	<0.20	0.0721	<0.0085	<0.050	<0.020
20	0	0.0052	<0.15	0.922	<0.080	<0.080	<0.080	<0.15	1.52	<0.20	0.0646	<0.0085	<0.050	<0.020
	1	0.0054	<0.15	1.03	<0.080	<0.080	<0.080	<0.15	1.51	<0.20	0.0668	<0.0085	<0.050	<0.020
	25	0.0180	<0.15	1.22	<0.080	<0.080	<0.080	<0.15	1.76	<0.20	0.0768	0.0185	<0.050	<0.020
21	0	0.0072	<0.15	0.928	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0643	0.0102	<0.050	<0.020
	1	0.0067	<0.15	0.882	<0.080	<0.080	<0.080	<0.15	1.53	<0.20	0.0646	0.0091	<0.050	<0.020
	12	0.0081	<0.15	0.961	<0.080	<0.080	<0.080	<0.15	1.56	<0.20	0.0696	<0.0085	<0.050	<0.020
22	0	<0.0030	<0.15	1.28	<0.080	<0.080	<0.080	<0.15	1.61	<0.20	0.0769	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.28	<0.080	<0.080	<0.080	<0.15	1.55	<0.20	0.0760	<0.0085	<0.050	<0.020
	25	<0.0030	<0.15	1.29	<0.080	<0.080	<0.080	<0.15	1.77	<0.20	0.0766	<0.0085	<0.050	<0.020
23	0	0.0115	<0.15	1.12	<0.080	<0.080	<0.080	<0.15	1.52	<0.20	0.0643	0.0212	<0.050	<0.020
	1	0.0112	<0.15	1.13	<0.080	<0.080	<0.080	<0.15	1.62	<0.20	0.0643	0.0194	<0.050	<0.020
24	0	0.0143	<0.15	1.16	<0.080	<0.080	<0.080	<0.15	1.65	<0.20	0.0648	0.0265	<0.050	<0.020
	1	0.0144	<0.15	1.15	<0.080	<0.080	<0.080	<0.15	1.54	<0.20	0.0642	0.0261	<0.050	<0.020
25	0	0.0129	<0.15	1.13	<0.080	<0.080	<0.080	<0.15	1.30	<0.20	0.0647	0.0235	<0.050	<0.020
	1	0.0129	<0.15	1.11	<0.080	<0.080	<0.080	<0.15	1.42	<0.20	0.0643	0.0224	<0.050	<0.020

APPENDIX II TABLE 8 LAKE LABERGE WATER QUALITY DATA - JULY 8-11, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
26	0	0.0151	<0.15	1.12	<0.080	<0.080	<0.080	<0.15	1.44	<0.20	0.0638	0.0284	<0.050	<0.020
27	0	0.0161	<0.15	1.23	<0.080	<0.080	<0.080	<0.15	1.27	<0.20	0.0652	0.0307	<0.050	<0.020
28	0	0.0149	<0.15	1.18	<0.080	<0.080	<0.080	<0.15	1.27	<0.20	0.0651	0.0287	<0.050	<0.020

* Not sufficient sample for analysis.

NOTE: Samples 22 through to 28 were delayed in transit and analyzed 4 1/2 months after collection so many of the results could be unreliable.

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
1*	0	-	9.20		8.10	7.7	-	102	5	4.2	23	59
2*	0	-	8.71		8.30	8.1	-	355	10	1.4	<5	235
3*	0	-	5.10		8.15	8.0	-	395	10	1.2	<5	250
4	0	-	11.04		-	8.0	-	126	<5	<1.0	<5	77
	1	-	10.50		-	8.0	-	130	<5	<1.0	<5	85
5												
6	0	-	10.08		-	7.8	-	92.0	<5	<1.0	<5	64
	1	-	10.02		-	7.8	-	92.0	<5	<1.0	<5	61
	8	-	9.97		-	7.8	-	91.5	<5	<1.0	<5	57
7	0	-	10.26		-	7.8	-	96.2	<5	<1.0	<5	60
	1	-	10.45		-	7.8	-	92.2	<5	<1.0	<5	57
8	0	-	10.16		-	7.8	-	93.8	<5	<1.0	<5	57
	1	-	10.23		-	7.8	-	93.8	<5	<1.0	<5	57
	12	-	10.42		-	7.8	-	94.3	<5	2.4	<5	58
9	0	-	9.96		-	7.8	-	93.5	<5	<1.0	<5	57
	1	-	10.3		-	7.8	-	93.5	<5	<1.0	<5	57
	8	-	10.36		-	7.8	-	93.5	<5	<1.0	<5	58

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
10	0	-	10.58		-	7.8	-	90.1	<5	<1.0	<5	58
	1	-	10.15		-	7.8	-	93.5	<5	<1.0	<5	57
	29	-	10.71		-	7.8	-	94.0	<5	<1.0	<5	56
11	0	-	10.70		-	7.8	-	85.7	<5	1.5	<5	52
	1	-	10.31		-	7.7	-	87.0	<5	1.9	<5	53
	9	-	10.26		-	7.8	-	91.5	<5	<1.0	<5	54
12												
13	0	14	10.67	110	8.5	7.5	-	92.0	<5	<1.0	<5	57
	1	14	10.62	110	8.35	7.6	-	93.5	<5	<1.0	<5	56
14	0	15	10.86	114	8.1	7.6	-	90.5	<5	<1.0	<5	56
	1	15	10.05	106	8.2	7.4	-	88.5	<5	1.1	<5	54
15	0	11	9.84	95	8.2	7.6	-	84.2	<5	2.3	<5	52
	1	10	9.97	95	8.28	7.6	-	85.0	<5	1.3	<5	52
	25	10	10.01	95	8.20	7.6	-	90.0	<5	<1.0	<5	56
16	0	12	10.66	106	8.15	7.6	-	81.4	<5	1.4	<5	54
	1	13	10.40	105	8.15	7.6	-	80.0	<5	4.7	<5	54
	25	12	10.43	104	8.12	7.7	-	92.5	<5	<1.0	<5	58
17	0	13	10.15	103	8.22	7.6	-	80.0	<5	1.7	<5	47
	1	14	10.67	110	8.10	7.6	-	79.5	<5	1.8	<5	48
	25	11	10.32	100	8.15	7.7	-	89.5	<5	<1.0	<5	51

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATUR-ATION	IN SITU pH	LAB pH	IN SITU CONDUC-TIVITY (umhos/cm)	LAB CONDUC-TIVITY (umhos/cm)	COLOUR (colour units)	TURB-IDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
18	0	13			8.18	7.6	-	88.0	<5	<1.0	<5	55
	1	13	9.85	100	8.2	7.6	-	87.0	<5	<1.0	<5	52
19	0	13.5	10.98	112	8.15	7.6	-	88.0	<5	<1.0	<5	60
	1	13	10.91	111	8.25	7.6	-	88.0	<5	<1.0	<5	72
	25	13	10.95	111	8.20	7.6	-	92.0	<5	<1.0	<5	57
20	0	14	10.47	108	8.1	7.6	-	83.0	<5	2.7	<5	52
	1	14	10.92	113	8.15	7.6	-	84.0	<5	3.0	<5	50
	25	13	10.35	105	8.2	7.7	-	92.0	<5	<1.0	<5	54
21	0	12	10.17	101	8.21	7.7	-	82.0	<5	3.7	<5	50
	1	14	10.46	101	8.15	7.7	-	81.0	<5	3.9	<5	53
	13	9	10.45	97	8.20	7.7	-	88.0	<5	<1.0	<5	58
22	0	14	10.61	110	7.99	7.8	-	90.0	<5	<1.0	<5	60
	1	14	10.75	111	8.00	7.7	-	90.0	<5	<1.0	<5	58
	25	15	10.24	108	8.05	7.7	-	90.0	<5	<1.0	<5	59
23	0	14	11.00	114	8.15	7.8	-	79.5	<5	2.8	5	48
	1	14	10.32	107	8.32	7.7	-	81.0	<5	3.4	5	48
24	0	15	10.75	113	8.12	7.7	-	80.0	5	3.3	8	48
	1	14	10.40	108	8.22	7.7	-	80.0	<5	3.6	9	46
25	0	15	10.80	114	8.19	7.7	-	81.0	5	3.6	<5	49
	1	15	10.56	111	8.30	7.7	-	80.5	<5	3.2	6	47

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(I) Physical and Chemical Parameters

STATION	DEPTH (m)	TEMP °C	D.O. mg/l	% D.O. SATURATION	IN SITU pH	LAB pH	IN SITU CONDUCTIVITY (umhos/cm)	LAB CONDUCTIVITY (umhos/cm)	COLOUR (colour units)	TURBIDITY (FTU)	N.F. RESIDUE (mg/l)	F. RESIDUE (mg/l)
26	0	14	11.15	115	7.50	7.8	-	79.5	<5	4.3	8	46
27	0	14	10.56	109	8.00	7.9	-	80.0	<5	4.0	8	46
28	0	14	10.92	113	8.28	7.8	-	81.0	<5	3.7	9	46

- No measurements taken due to unavailability of instruments.

* Samples were taken July 23, 1980 from Stations 1, 2 and 3.

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
1*	0		18	42.6	48.0	1.0	11.0		0.0155	<0.0050	<0.010	0.0142	6.45	0.77
2*	0		26	145	180.0	5.0	34.0		0.0086	<0.0050	<0.010	0.0322	39.6	1.13
3*	0		48	162	202.0	4.0	38.0		0.0094	<0.0050	<0.010	0.0215	46.5	1.14
4	0	5	5	52.7	57.6	1.0	11.0		<0.0050	<0.0050	<0.010	0.0061	9.90	0.50
	1	6	0	53.8	56.7	2.0	12.0		<0.0050	<0.0050	<0.010	0.0056	10.6	<0.50
5														
6	0	0	0	39.8	42.6	1.0	8.0		<0.0050	<0.0050	<0.010	<0.0050	5.90	0.61
	1	0	0	39.5	42.0	2.0	8.0		<0.0050	<0.0050	<0.010	<0.0050	5.60	<0.50
	8	1	0	39.5	42.4	2.0	8.0		<0.0050	<0.0050	<0.010	0.0050	5.60	0.54
7	0	0	1	41.5	44.2	1.0	9.0		<0.0050	<0.0050	<0.010	0.0059	5.60	0.50
	1	0	0	40.5	42.8	1.0	9.0		<0.0050	<0.0050	<0.010	0.0139	5.80	<0.50
8	0	0	0	40.3	42.5	1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.60	0.50
	1	0	0	39.8	42.2	1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.70	0.50
	12	0	0	40.3	42.6	2.0	8.0		<0.0050	<0.0050	<0.010	<0.0050	5.70	0.58

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
9	0	0	0	39.8	41.7	2.0	8.0		<0.0050	<0.0050	<0.010	0.0070	5.60	0.50
	1	0	0	39.5	42.7	2.0	8.0		<0.0050	<0.0050	<0.010	0.0050	5.60	<0.50
	8	1	0	39.5	42.5	1.0	8.0		<0.0050	<0.0050	<0.010	<0.0050	5.70	0.50
10	0	0	0	39.5	42.0	1.0	8.0		<0.0050	<0.0050	<0.010	0.0057	5.70	<0.50
	1	0	0	40.0	42.2	1.0	9.0		<0.0050	<0.0050	<0.010	0.0050	5.60	0.53
	29	0	0	39.5	44.7	2.0	8.0		<0.0050	<0.0050	0.011	0.0212	5.60	<0.50
11	0	0	0	34.8	39.4	1.0	8.0		<0.0050	<0.0050	<0.010	0.0079	5.50	<0.50
	1	0	1	36.3	38.8	2.0	8.0		<0.0050	<0.0050	<0.010	0.0102	5.50	0.67
	9	0	0	38.5	41.9	2.0	8.0		<0.0050	<0.0050	<0.010	0.0145	5.60	0.51
12														
13	0	0	0	39.0	43.1	1.0	9.0		<0.0050	<0.0050	<0.010	0.0212	5.70	<0.50
	1	0	0	39.3	42.4	1.0	9.0		<0.0050	<0.0050	<0.010	0.0080	5.70	0.55
14	0	0	0	38.5	41.4	1.0	9.0		<0.0050	<0.0050	<0.010	0.0101	5.50	<0.50
	1	0	0	38.5	40.8	1.0	9.0		<0.0050	<0.0050	<0.010	0.0140	5.40	0.50

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
15	0	0	0	36.0	39.0	<1.0	9.0		<0.0050	<0.0050	<0.010	0.0166	5.20	0.50
	1	0	0	36.5	40.6	1.0	9.0		<0.0050	<0.0050	<0.010	0.0169	5.40	0.50
	25	2	0	39.5	42.6	1.0	9.0		<0.0050	<0.0050	<0.010	0.0197	5.65	0.60
16	0	0	1	35.0	37.7	1.0	8.0		<0.0050	<0.0050	<0.010	0.0105	5.05	<0.50
	1	61	4	34.0	37.3	1.0	8.0		<0.0050	<0.0050	<0.010	0.0088	5.00	0.63
	25	1	0	34.0	41.4	1.0	9.0		<0.0050	<0.0050	0.011	0.0063	5.65	0.53
17	0	1	0	34.5	37.6	1.0	8.0		<0.0050	<0.0050	<0.010	<0.0050	5.45	<0.50
	1	9	6	34.5	37.4	<1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.10	0.67
	25	15	0	38.3	42.0	<1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.50	<0.50
18	0	4	0	38.0	41.4	<1.0	9.0		<0.0050	<0.0050	<0.010	0.0112	5.45	<0.50
	1	2	0	38.3	41.8	<1.0	9.0		<0.0050	<0.0050	<0.010	0.0109	5.55	<0.50
19	0	2	0	38.1	40.4	1.0	9.0		<0.0050	<0.0050	<0.010	0.0086	5.55	<0.50
	1	0	0	37.7	41.0	1.0	9.0		<0.0050	<0.0050	<0.010	0.0058	5.45	<0.50
	25	0	0	39.0	41.9	1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.70	<0.50
20	0	11	3	35.5	38.1	1.0	8.0		<0.0050	<0.0050	<0.010	0.0103	5.20	<0.50
	1	16	2	35.5	38.2	1.0	8.0		<0.0050	<0.0050	<0.010	0.0061	5.20	<0.50
	25	3	0	40.0	41.9	<1.0	9.0		<0.0050	<0.0050	<0.010	0.0063	5.65	<0.50

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(II) Bacterial and Chemical Parameters

STATION	DEPTH (m)	TOTAL COLIFORMS per 100 ml	FAECAL COLIFORMS per 100 ml	TOTAL ALKALINITY (mg/l as $CaCO_3$)	HARDNESS (mg/l as $CaCO_3$)	TOC (mg/l)	TIC (mg/l)	ORTHO PO_4-P (mg/l)	TOTAL PO_4-P (mg/l)	NO_2-N (mg/l)	NO_3-N (mg/l)	NH_3-N (mg/l)	SO_4 (mg/l)	Cl (mg/l)
21	0	10	1	34.5	37.2	1.0	8.0		<0.0050	<0.0050	<0.010	0.0053	5.05	<0.50
	1	72	0	35.0	37.8	1.0	8.0		<0.0050	<0.0050	<0.010	0.0051	5.20	<0.50
	13	11	0	38.5	41.6	<1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.60	<0.50
22	0	0	0	39.5	42.0	<1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.60	<0.50
	1	0	0	39.5	41.3	1.0	9.0		<0.0050	<0.0050	<0.010	<0.0050	5.55	<0.50
	25	6	0	39.5	41.6	1.0	9.0		<0.0050	<0.0050	<0.010	0.0057	5.55	<0.50
23	0	76	1	34.5	36.5	<1.0	8.0		<0.0050	<0.0050	<0.010	0.0075	5.10	<0.50
	1	50	10	35.0	37.0	1.0	8.0		<0.0050	<0.0050	<0.010	0.0061	5.20	0.50
24	0	100	21	34.0	36.7	<1.0	8.0		<0.0050	<0.0050	<0.010	0.0098	5.05	<0.50
	1	114	30	34.0	36.4	<1.0	8.0		<0.0050	<0.0050	0.010	0.0064	5.00	<0.50
25	0	106	8	34.5	37.2	<1.0	8.0		<0.0050	<0.0050	<0.010	0.0120	5.10	<0.50
	1	69	8	35.0	37.2	2.0	8.0		<0.0050	<0.0050	<0.010	<0.0050	5.25	0.51
26	0	TNTC	33	34.2	36.0	1.0	9.0		<0.0050	<0.0050	<0.010	0.0060	5.05	0.51
27	0	123	26	35.0	37.0	2.0	7.0		<0.0050	<0.0050	<0.010	<0.0050	3.90	<0.50
28	0	TNTC	26	34.8	37.0	1.0	8.0		<0.0050	<0.0050	<0.010	0.0055	5.00	<0.50

TNTC: Too numerous to count.

* Samples were taken July 23, 1980 from Stations 1, 2 and 3.

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
1*	0	<0.030	<0.090	<0.15	0.0514	14.9	<0.010	<0.015	<0.015	<0.010	0.268	<0.00020	0.642	2.62
2*	0	<0.030	<0.090	<0.15	0.0577	45.4	<0.010	<0.015	<0.015	<0.010	0.070	<0.00020	0.996	16.3
3*	0	<0.030	<0.090	<0.15	0.0578	50.4	<0.010	<0.015	<0.015	<0.010	0.057	<0.00020	1.11	18.5
4	0		<0.090	<0.15	0.0249	16.7	<0.010	<0.015	<0.015	<0.010	0.048	<0.10	0.675	3.85
	1		<0.090	<0.15	0.0253	16.5	<0.010	<0.015	<0.015	<0.010	0.058	<0.10	0.668	3.77
5														
6	0		<0.090	<0.15	0.0237	13.3	<0.010	<0.015	<0.015	<0.010	0.026	<0.10	0.593	2.29
	1		<0.090	<0.15	0.0234	13.1	<0.010	<0.015	<0.015	<0.010	0.026	<0.10	0.609	2.26
	8			<0.15	0.0243	13.2	<0.010	<0.015	<0.015	<0.010	0.059	<0.10	0.628	2.28
7	0		<0.090	<0.15	0.0244	13.7	<0.010	<0.015	<0.015	<0.010	0.036	<0.10	0.593	2.42
	1		<0.090	<0.15	0.0241	13.3	<0.010	<0.015	<0.015	<0.010	0.047	<0.10	0.628	2.34
8	0		<0.090	<0.15	0.0240	13.2	<0.010	<0.015	<0.015	<0.010	0.021	<0.10	0.640	2.31
	1		<0.090	<0.15	0.0290	13.1	<0.010	<0.015	<0.015	<0.010	0.028	<0.10	0.625	2.30
	12		<0.090	<0.15	0.0246	13.2	<0.010	<0.015	<0.015	<0.010	0.068	<0.10	0.612	2.33
9	0		<0.090	<0.15	0.0231	13.0	<0.010	<0.015	<0.015	<0.010	0.015	<0.10	0.609	2.25
	1		<0.090	<0.15	0.0242	13.3	<0.010	<0.015	<0.015	<0.010	0.018	<0.10	0.631	2.30
	8		<0.090	<0.15	0.0242	13.2	<0.010	<0.015	<0.015	<0.010	0.025	<0.10	0.609	2.31

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
10	0		<0.090	<0.15	0.0239	13.1	<0.010	<0.015	<0.015	<0.010	0.017	<0.10	0.609	2.28
	1		<0.090	<0.15	0.0241	13.1	<0.010	<0.015	<0.015	<0.010	0.025	<0.10	0.637	2.30
	29		<0.090	<0.15	0.0242	13.9	<0.010	<0.015	<0.015	<0.010	<0.010	<0.10	0.640	2.43
11	0		0.100	<0.15	0.0235	12.3	<0.010	<0.015	<0.015	<0.010	0.089	<0.10	0.609	2.11
	1		0.100	<0.15	0.0234	12.1	<0.010	<0.015	<0.015	<0.010	0.099	<0.10	0.628	2.09
	9		<0.090	<0.15	0.0252	13.0	<0.010	<0.015	<0.015	<0.010	0.094	<0.10	0.665	2.28
12														
13	0		<0.090	<0.15	0.0239	13.3	<0.010	<0.015	<0.015	<0.010	0.045	<0.10	0.675	2.39
	1			<0.15	0.0238	13.1	<0.010	<0.015	<0.015	<0.010	0.046	<0.10	0.650	2.35
14	0		<0.090	<0.15	0.0237	12.9	<0.010	<0.015	<0.015	<0.010	0.047	<0.10	0.668	2.24
	1		<0.090	<0.15	0.0234	12.7	<0.010	<0.015	<0.015	<0.010	0.051	<0.10	0.656	2.21
15	0		0.106	<0.15	0.0236	12.2	<0.010	<0.015	<0.015	<0.010	0.113	<0.10	0.631	2.08
	1		<0.090	<0.15	0.0238	12.7	<0.010	<0.015	<0.015	<0.010	0.075	<0.10	0.650	2.17
	25		<0.090	<0.15	0.0240	13.2	<0.010	<0.015	<0.015	<0.010	0.042	<0.10	0.631	2.34
16	0		0.129	<0.15	0.0234	11.8	<0.010	<0.015	<0.015	<0.010	0.149	<0.10	0.606	2.01
	1		0.230	<0.15	0.0246	11.6	<0.010	<0.015	<0.015	<0.010	0.237	<0.10	0.646	2.03
	25		<0.090	<0.15	0.0236	12.8	<0.010	<0.015	<0.015	<0.010	0.035	<0.10	0.634	2.30
17	0		0.190	<0.15	0.0239	11.8	<0.010	<0.015	<0.015	<0.010	0.19	<0.10	0.634	1.98
	1		0.211	<0.15	0.0241	11.7	<0.010	<0.015	<0.015	<0.010	0.209	<0.10	0.600	1.99
	25		<0.090	<0.15	0.0247	13.1	<0.010	<0.015	<0.015	<0.010	0.075	<0.10	0.603	2.26

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
18	0		<0.090	<0.15	0.0238	12.9	<0.010	<0.015	<0.015	<0.010	0.071	<0.10	0.606	2.22
	1		0.113	<0.15	0.0249	13.0	<0.010	<0.015	<0.015	<0.010	0.137	<0.10	0.656	2.27
19	0		<0.090	<0.15	0.0232	12.6	<0.010	<0.015	<0.015	<0.010	0.052	<0.10	0.659	2.16
	1		<0.090	<0.15	0.0237	12.8	<0.010	<0.015	<0.015	<0.010	0.061	<0.10	0.612	2.20
	25		<0.090	<0.15	0.0240	13.0	<0.010	<0.015	<0.015	<0.010	0.045	<0.10	0.615	2.28
20	0		0.150	<0.15	0.0239	11.9	<0.010	<0.015	<0.015	<0.010	0.156	<0.10	0.603	2.03
	1		0.164	<0.15	0.0240	11.9	<0.010	<0.015	<0.015	<0.010	0.167	<0.10	0.625	2.05
	25		<0.090	<0.15	0.0240	13.0	<0.010	<0.015	<0.015	<0.010	0.033	<0.10	0.625	2.28
21	0		0.188	<0.15	0.0240	11.6	<0.010	<0.015	<0.015	<0.010	0.213	<0.10	0.631	1.99
	1		0.198	<0.15	0.0244	11.8	<0.010	<0.015	<0.015	<0.010	0.243	<0.10	0.593	2.03
	13		<0.090	<0.15	0.0242	12.9	<0.010	<0.015	<0.015	<0.010	0.081	<0.10	0.609	2.99
22	0		<0.090	<0.15	0.0243	13.0	<0.010	<0.015	<0.015	<0.010	0.098	<0.10	0.615	2.31
	1		<0.090	<0.15	0.0240	12.8	<0.010	<0.015	<0.015	<0.010	0.097	<0.10	0.615	2.26
	25		<0.090	<0.15	0.0242	12.9	<0.010	<0.015	<0.015	<0.010	0.080	<0.10	0.597	2.29
23	0		0.204	<0.15	0.0240	11.4	<0.010	<0.015	<0.015	<0.010	0.210	<0.10	0.584	1.96
	1		0.225	<0.15	0.0243	11.5	<0.010	<0.015	<0.015	<0.010	0.216	<0.10	0.587	2.00
24	0		0.247	<0.15	0.0246	11.4	<0.010	<0.015	<0.015	<0.010	0.247	<0.10	0.621	1.99
	1		0.229	<0.15	0.0242	11.3	<0.010	<0.015	<0.015	<0.010	0.256	<0.10	0.578	1.99
25	0		0.194	<0.15	0.0245	11.6	<0.010	<0.015	<0.015	<0.010	0.219	<0.10	0.578	2.01
	1		0.206	<0.15	0.0242	11.6	<0.010	<0.015	<0.015	<0.010	0.216	<0.10	0.584	2.01

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(III) Extractable Metals - Ag to Mg

STATION	DEPTH (m)	Ag mg/l	Al mg/l	As mg/l	Ba mg/l	Ca mg/l	Cd mg/l	Co mg/l	Cr mg/l	Cu mg/l	Fe mg/l	Hg mg/l	K mg/l	Mg mg/l
26	0		0.242	<0.15	0.0243	11.2	<0.010	<0.015	<0.015	<0.010	0.253	<0.10	0.600	1.96
27	0		0.213	<0.15	0.0250	11.5	<0.010	<0.015	<0.015	<0.010	0.257	<0.10	0.584	2.00
28	0		0.262	<0.15	0.0256	11.5	<0.010	<0.015	<0.015	<0.010	0.284	<0.10	0.597	2.02

* Samples were taken July 23, 1980 from Stations 1, 2 and 3.

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
1*	0	0.0106	<0.15	1.30	<0.080	<0.080	<0.080	<0.15	1.74	<0.20	0.0780	0.0103	<0.050	<0.020
2*	0	0.0120	<0.15	6.57	<0.080	<0.080	<0.080	<0.15	3.71	<0.20	0.500	<0.0085	<0.050	<0.020
3*	0	0.0141	<0.15	7.82	<0.080	<0.080	<0.080	<0.15	4.17	<0.20	0.570	<0.0085	<0.050	<0.020
4	0	0.0034	<0.15	1.58	<0.080	<0.080	<0.080	<0.15	1.65	<0.20	0.115	<0.0085	<0.050	<0.020
	1	0.0034	<0.15	1.56	<0.080	<0.080	<0.080	<0.15	1.66	<0.20	0.112	<0.0085	<0.050	<0.020
5														
6	0	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.40	<0.20	0.0683	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.39	<0.20	0.0678	<0.0085	<0.050	<0.020
	8	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.39	<0.20	0.0684	<0.0085	<0.050	<0.020
7	0	<0.0030	<0.15	1.10	<0.080	<0.080	<0.080	<0.15	1.36	<0.20	0.0729	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.37	<0.20	0.0698	<0.0085	<0.050	<0.020
8	0	<0.0030	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.38	<0.20	0.0688	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.38	<0.20	0.0684	<0.0085	<0.050	<0.020
	12	0.0045	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.39	<0.20	0.0691	<0.0085	<0.050	<0.020
9	0	<0.0030	<0.15	1.04	<0.080	<0.080	<0.080	<0.15	1.37	<0.20	0.0678	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.38	<0.20	0.0695	<0.0085	<0.050	<0.020
	8	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.38	<0.20	0.0693	<0.0085	<0.050	<0.020

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
10	0	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.37	<0.20	0.0684	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.37	<0.20	0.0690	<0.0085	<0.050	<0.020
	29	<0.0030	<0.15	1.16	<0.080	<0.080	<0.080	<0.15	1.39	<0.20	0.0731	<0.0085	<0.050	<0.020
11	0	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.36	<0.20	0.0636	<0.0085	<0.050	<0.020
	1	0.0034	<0.15	0.988	<0.080	<0.080	<0.080	<0.15	1.36	<0.20	0.0641	<0.0085	<0.050	<0.020
	9	0.0041	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.36	<0.20	0.0684	<0.0085	<0.050	<0.020
12														
13	0	<0.0030	<0.15	1.14	<0.080	<0.080	<0.080	<0.15	1.31	<0.20	0.0705	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.10	<0.080	<0.080	<0.080	<0.15	1.31	<0.20	0.0692	<0.0085	<0.050	<0.020
14	0	<0.0030	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.34	<0.20	0.0677	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.07	<0.080	<0.080	<0.080	<0.15	1.34	<0.20	0.0644	<0.0085	<0.050	<0.020
15	0	0.0039	<0.15	1.02	<0.080	<0.080	<0.080	<0.15	1.35	<0.20	0.0632	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.04	<0.080	<0.080	<0.080	<0.15	1.35	<0.20	0.0662	<0.0085	<0.050	<0.020
	25	<0.0030	<0.15	1.10	<0.080	<0.080	<0.080	<0.15	1.36	<0.20	0.0689	<0.0085	<0.050	<0.020
16	0	0.0053	<0.15	1.01	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0616	0.0086	<0.050	<0.020
	1	0.0079	<0.15	1.07	<0.080	<0.080	<0.080	<0.15	1.35	<0.20	0.0606	0.0125	<0.050	<0.020
	25	<0.0030	<0.15	1.11	<0.080	<0.080	<0.080	<0.15	1.36	<0.20	0.0675	<0.0085	<0.050	<0.020
17	0	0.0064	<0.15	0.998	<0.080	<0.080	<0.080	<0.15	1.33	<0.20	0.0604	0.0106	<0.050	<0.020
	1	0.0069	<0.15	0.987	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0599	0.0115	<0.050	<0.020
	25	0.0030	<0.15	1.03	<0.080	<0.080	<0.080	<0.15	1.34	<0.20	0.0678	<0.0085	<0.050	<0.020

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
18	0	<0.0030	<0.15	1.03	<0.080	<0.080	<0.080	<0.15	1.33	<0.20	0.0673	<0.0085	<0.050	<0.020
	1	0.0053	<0.15	1.04	<0.080	<0.080	<0.080	<0.15	1.33	<0.20	0.0674	<0.0085	<0.050	<0.020
19	0	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.33	<0.20	0.0647	<0.0085	<0.050	<0.020
	1	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.33	<0.20	0.0664	<0.0085	<0.050	<0.020
	25	<0.0030	<0.15	1.06	<0.080	<0.080	<0.080	<0.15	1.34	<0.20	0.0677	<0.0085	<0.050	<0.020
20	0	0.0051	<0.15	1.01	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0624	<0.0085	<0.050	<0.020
	1	0.0055	<0.15	1.01	<0.080	<0.080	<0.080	<0.15	1.33	<0.20	0.0691	0.0088	<0.050	<0.020
	25	<0.0030	<0.15	1.05	<0.080	<0.080	<0.080	<0.15	1.34	<0.20	0.0683	<0.0085	<0.050	<0.020
21	0	0.0072	<0.15	1.02	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0607	0.0109	<0.050	<0.020
	1	0.0075	<0.15	1.01	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0616	0.0111	<0.050	<0.020
	13	0.0030	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0679	<0.0085	<0.050	<0.020
22	0	0.0067	<0.15	1.08	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0690	<0.0085	<0.050	<0.020
	1	0.0056	<0.15	1.05	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0673	<0.0085	<0.050	<0.020
	25	0.0031	<0.15	1.05	<0.080	<0.080	<0.080	<0.15	1.32	<0.20	0.0678	<0.0085	<0.050	<0.020
23	0	0.0073	<0.15	0.961	<0.080	<0.080	<0.080	<0.15	1.30	<0.20	0.0604	0.0120	<0.050	<0.020
	1	0.0074	<0.15	0.987	<0.080	<0.080	<0.080	<0.15	1.30	<0.20	0.0605	0.0129	<0.050	<0.020
24	0	0.0086	<0.15	1.01	<0.080	<0.080	<0.080	<0.15	1.31	<0.20	0.0606	0.0138	<0.050	<0.020
	1	0.0085	<0.15	0.991	<0.080	<0.080	<0.080	<0.15	1.31	<0.20	0.0598	0.0131	<0.050	<0.020
25	0	0.0079	<0.15	0.991	<0.080	<0.080	<0.080	<0.15	1.30	<0.20	0.0614	0.0116	<0.050	<0.020
	1	0.0078	<0.15	0.998	<0.080	<0.080	<0.080	<0.15	1.29	<0.20	0.0602	0.0113	<0.050	<0.020

APPENDIX II TABLE 9 LAKE LABERGE WATER QUALITY DATA - AUGUST 5-7, 1980 (continued)
(iv) Extractable Metals - Mn to Zn

STATION	DEPTH (m)	Mn mg/l	Mo mg/l	Na mg/l	Ni mg/l	Pb mg/l	Sb mg/l	Se mg/l	Si mg/l	Sn mg/l	Sr mg/l	Ti mg/l	V mg/l	Zn mg/l
26	0	0.0084	<0.15	0.991	<0.080	<0.080	<0.080	<0.15	1.31	<0.20	0.0598	0.0136	<0.050	<0.020
27	0	0.0079	<0.15	0.981	<0.080	<0.080	<0.080	<0.15	1.31	<0.20	0.0607	0.0130	<0.050	<0.020
28	0	0.0092	<0.15	0.997	<0.080	<0.080	<0.080	<0.15	1.30	<0.20	0.0609	0.0150	<0.050	<0.020

* Samples were taken July 23, 1980 from Stations 1, 2 and 3.

APPENDIX III

BOTTOM FAUNA

APPENDIX III TABLE 1 LAKE LABERGE BOTTOM FAUNA STATIONS AND SAMPLING DATES

STATIONS	DATE 77 07 05	77 08 18	77 08 29	77 10 24	78 06 29	78 08 14	78 09 22	78 10 20	TOTAL
1						x			1
2						x			1
3						x		x	2
4	x	x	x	x		x		x	6
5	x		x						2
6	x	x	x	x		x		x	6
7						x		x	2
8	x	x	x	x		x		x	6
9							x		1
10									0
11						x			1
12	x		x						2
13	x	x	x	x	x	x	x		7
14	x		x			x	x		4
15							x		1
16							x		1
17						x	x		2
18					x	x	x		3
19							x		1
20						x	x		2
21					x	x	x		3
22					x	x			2
23					x	x			2
24					x	x			2
25					x	x			2
26									0
27									0
28									0
TOTAL	7	4	7	4	7	18	10	5	

APPENDIX III TABLE 2 TAXONOMIC LIST OF THE BOTTOM FAUNA COLLECTED IN LAKE LABERGE

			1977	1978
	Phylum:	Coelenterata		
	Order:	Hydroida		
	Family:	Hydridae		
1.		Hydra sp.	x	
2.	Phylum:	Nematoda	x	x
	Phylum:	Annelida		
	Class:	Oligochaeta		
	Order:	Haplotaxida		
3.	Family:	Enchytraeidae	x	x
	Family:	Naididae		
4.		Nais sp.	x	
5.		Nais behningi	x	
6.		Nais (communis?) sp.		x
7.		Stylaria lacustris	x	
	Family:	Tubificidae (juveniles)		
8.		Potamothrix sp?		x
9.		Limnodrilus sp?		x
10.		Rhyacodrilus sp?		x
11.		Limnodrilus sp.	x	x
12.		Rhyacodrilus sp.	x	x
	Order:	Lumbriculida		
	Family:			
13.		Lumbriculus variegatus		x
14.		Stylodrilus sp.		x
	Class:	Hirudinea		
	Order:	Glossiphonilidae		
15	Family:	Rhynchobdellida	x	
16.		Batrachobdella sp.	x	

APPENDIX III TABLE 2 TAXONOMIC LIST OF THE BOTTOM FAUNA COLLECTED IN LAKE LABERGE (continued)

			1977	1978
	Phylum:	Arthropoda		
	Class:	Crustacea		
	Order:	Cladocera		
	Family:	Chydoridae		
17.		Pleuroxus sp.	x	
	Family:	Daphnidae		
18.		Daphnia sp? (juvenile)		x
19.	Order:	Amphipoda (damaged)		x
	Family:	Gammaridae		
20.		Gammarus lacustris	x	x
	Order:	Astracoda		
	Family:	Candonidae		
	Sub-family:	Candoninae		
21.		Candona sp.	x	
22.		Candona sp?		x
	Sub-family:	Cyprinae		
23.		Cypriconcha sp?		x
	Family:	Limnocytheridae		
24.		Limnocythere sp.	x	
25.	Class:	Arachnoidae (juveniles)	x	x
	Order:	Hydracarina		
	Family:	Hygrobatidae		
26.		Hygrobates sp.	x	
	Family:	Limnesiidae		
27.		Limnesia sp?		x
	Family:	Sperchonidae		
28.		Sperchon sp.		x
29.		Teutonia sp.	x	x
	Class:	Insecta		
	Order:	Plecoptera		
	Family:	Pteronarcidae		

APPENDIX III TABLE 2 TAXONOMIC LIST OF THE BOTTOM FAUNA COLLECTED IN LAKE LABERGE (continued)

			1977	1978
30.	Family:	Pteronarcys sp. Peltoperlidae	x	
31.		Isogenus (Diploperla) sp.	x	
32.	Order:	Ephemeroptera (damaged)	x	
	Family:	Heptageniidae		
33.		Heptagenia sp.	x	x
	Order:	Hemiptera		
	Family:	Corixidae		
34.		Dasycorixa sp.	x	
35.	Order:	Trichoptera (empty cases)	x	x
	Family:	Hydropsychidae		
36.		Arctopsyche sp.	x	x
	Family:	Hydroptilidae		
37.		Oxyethira sp.	x	
	Family:	Limnephilidae		
38.		Clostoeca sp.	x	
39.		Drusinus sp.		x

APPENDIX III TABLE 2 TAXONOMIC LIST OF THE BOTTOM FAUNA COLLECTED IN LAKE LABERGE (continued)

			1977	1978
40.		Platycentropus sp.	x	
	Family:	Limnephiloidae		
41.		Banksiola sp.	x	
	Order:	Coleoptera		
	Family:	Haliplidae		
42.		Brychius sp.		x
43.	Family:	Carabidae	x	
	Family:	Dytiscidae		
44.		Brachyvatus sp.		x
	Order:	Diptera		
45.	Family:	Simuliidae	x	x
	Family:	Ceratopogonidae		
46.		Culicoides sp.	x	
47.		Palpomyia sp.		x
48.	Family:	Chironomidae (pupa)	x	x
49.	Family:	Chironomidae (damaged)	x	x
50.		Ablabesmyia sp.		x
51.		Brilia sp.A	x	
52.		Brilia sp.B	x	
53.		Cardiocladius sp.		x
54.		Cardiocladius sp.A	x	
55.		Cardiocladius sp.B	x	
56.		Chironomus sp.	x	x
57.		Constempellina sp.		x
58.		Corynoneura sp.	x	
59.		Cricotopus sp.	x	x
60.		Cryptochironomous sp.	x	x
61.		Diplocladius sp.	x	
62.		Endochironomus sp.		x
63.		Eukiefferiella sp.		x
64.		Eukiefferiella sp.A	x	
65.		Eukiefferiella sp.B	x	
66.		Glyptotendipes sp.		x
67.		Heterotrissocladius sp.	x	x

APPENDIX III TABLE 2 TAXONOMIC LIST OF THE BOTTOM FAUNA COLLECTED IN LAKE LABERGE (continued)

			1977	1978
68.		Metriocnemus sp.		x
69.		Micropsectra sp.	x	x
70.		Orthocladius sp.	x	x
71.		Polypedilum sp.	x	x
72.		Potthastia sp.		x
73.		Procladius sp.		x
74.		Procladius sp.A	x	
75.		Procladius sp.B	x	
76.		Psectrocladius sp.		x
77.		Psectrocladius sp.A	x	
78.		Psectrocladius sp.B	x	
79.		Stenochironomus sp.		x
80.		Stichtichironomus sp.		x
81.		Tanypus sp?	x	x
82.		Tanypus sp.		x
83.		Tribelos sp.	x	x
84.	Sub-family:	Chironominae (undetermined)		x
85.	Sub-family:	Orthocladiinae (damaged)		x
	Family:	Empididae		
86.		Chelifera (moults)		x
87.		Chelifera sp.		x
88.		Clinocera sp.		x
89.		Hemerodromia sp.	x	x
	Family:	Dolichopodidae		
90.		Hydrophorus sp.		x
91.	Family:	Tipulidae (damaged)		x
92.		Tipula sp.		x
	Phylum:	Mollusca		
	Class:	Gastropoda		
	Order:	Basommatophora		
	Family:	Planorbidae		
93.		Gyraulus (Torquis) sp.	x	

APPENDIX III TABLE 2 TAXONOMIC LIST OF THE BOTTOM FAUNA COLLECTED IN LAKE LABERGE (continued)

			1977	1978
94.		Helisoma sp.	x	x
	Family:	Lymnaeidae		
95.		Lymnaea sp? (damaged)		x
96.		Lymnaea sp.	x	x
	Order:	Ctenobranchiata		
	Family:	Valvatidae		
97.		Valvata sp.	x	x
	Order:	Pelecypoda		
	Family:	Sphaeriidae		
98.		Pisidium	x	x
99.	Egg masses:	undetermined	x	x

Classification is based on Merritt (1978) for the insects and Pennak (1978) for the other classes.

APPENDIX III TABLE 3 BOTTOM FAUNA DATA SUMMARY FOR LAKE LABERGE 1977 AND 1978

STATION NUMBER	DATE	TOTAL NUMBER OF INDIVIDUALS	DIVERSITY	EVENNESS
1	78 08 14	18	0.68	0.97
2	78 08 14	135	0.73	0.68
3a	78 08 14	32	0.64	0.71
3a	78 10 20	62	0.93	0.86
3b	78 08 14	52	0.29	0.41
3b	78 10 20	34	0.85	0.89
3c	78 08 14	102	0.79	0.71
4	77 07 05	14	0.40	0.84
4	77 08 18	16	0.64	0.91
4	77 08 29	44	0.91	0.87
4	77 10 24	38	0.89	0.85
4	78 08 14	65	0.78	0.81
4	78 10 20	101	0.81	0.78
5	77 07 05	12	0.44	0.92
5	77 08 29	24	0.78	1.00
6	77 07 05	12	0.80	0.95
6	77 08 18	84	0.49	0.49
6	77 08 29	18	0.76	0.84
6	77 10 24	142	0.61	0.59
6	78 08 14	53	0.60	0.66
6	78 10 20	46	0.44	0.63
7a	78 08 14	52	0.30	0.62
7a	78 10 20	33	0.75	0.83
7b	78 10 20	82	0.72	0.85
8	77 07 05	15	0.78	0.93
8	77 08 18	46	0.77	0.71
8	77 08 29	22	0.81	0.84
8	77 10 24	13	0.66	0.85
8	78 08 14	30	0.74	0.95
8	78 10 20	34	0.66	0.73
9	78 09 22	2	0.0	0.0

APPENDIX III TABLE 3 BOTTOM FAUNA DATA SUMMARY FOR LAKE LABERGE 1977 AND 1978 (continued)

STATION NUMBER	DATE	TOTAL NUMBER OF INDIVIDUALS	DIVERSITY	EVENNESS
11a	78 08 14	16	0.80	0.95
11b	78 08 14	75	0.80	0.89
11c	78 08 14	21	0.86	0.90
12	77 07 05	51	0.67	0.79
12	77 08 29	35	0.94	0.87
13	77 07 05	31	0.88	0.98
13	77 08 18	77	0.33	0.39
13	77 08 29	47	0.74	0.96
13	77 10 24	31	0.86	0.82
13	78 06 29	84	0.96	0.86
13a	78 08 14	13	0.48	1.00
13b	78 08 14	33	0.89	0.89
13c	78 08 14	98	0.79	0.83
13d	78 08 14	60	0.70	0.82
13	78 09 22	50	0.75	0.89
14	77 07 05	14	0.88	0.97
14	77 08 29	3	0.48	1.00
14	78 08 14	36	0.84	0.84
14	78 09 22	12	0.58	0.96
15	78 09 22	10	0.18	0.59
16	78 09 22	21	0.12	0.39
17	78 08 14	20	0.56	0.93
17	78 09 22	44	0.59	0.76
18	78 06 29	93	0.81	0.81
18	78 08 14	181	0.75	0.75
18	78 09 22	46	0.70	0.83
19	78 09 22	33	0.43	0.56
20	78 08 14	17	0.22	0.72
20	78 09 22	41	0.73	0.80

APPENDIX III TABLE 3 BOTTOM FAUNA DATA SUMMARY FOR LAKE LABERGE 1977 AND 1978 (continued)

STATION NUMBER	DATE	TOTAL NUMBER OF INDIVIDUALS	DIVERSITY	EVENNESS
21a	78 06 29	30	0.68	0.81
21a	78 08 14	31	0.70	0.90
21a	78 09 22	27	0.62	0.73
21b	78 08 14	117	0.82	0.85
22	78 06 29	56	0.54	0.89
22a	78 08 14	153	0.82	0.76
22b	78 08 14	59	0.53	0.76
22c	78 08 14	48	0.57	0.95
23	78 06 29	20	0.67	0.96
23a	78 08 14	35	0.48	0.62
23b	78 08 14	110	0.66	0.66
24	78 06 29	13	0.32	0.67
24a	78 08 14	47	0.60	0.77
24b	78 08 14	92	0.73	0.73
24c	78 08 14	92	0.53	0.69
25	78 06 29	14	0.55	0.92
25	78 08 14	78	0.52	0.86

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 07 05

TAXONOMIC GROUP	4	5	6	8	12	13	14
1. Hydra sp.	-	-	-	-	-	-	-
2. Nematoda	-	-	-	-	-	-	-
3. Enchytraeidae	-	-	-	-	-	1	-
4. Nais sp.	-	-	-	-	-	-	-
5. Nais behningi	-	-	-	-	-	-	-
7. Stylaria lacustris	-	-	-	-	-	-	-
11. Limnodrilus sp.	8	-	-	-	-	3	2
12. Rhyacodrilus sp.	-	6	1	3	4	5	-
15. Rhynchobdellida	-	-	-	-	-	-	-
16. Batrachobdella sp.	-	-	-	-	-	-	-
27. Pleuroxus sp.	-	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	-	-	-
21. Candona sp.	-	-	-	-	-	-	1
24. Limnocythere sp.	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
26. Hygrobates sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	-
30. Pteronarcys sp.	-	-	-	-	-	-	-
31. Isogenus (Diploperla) sp.	-	-	-	-	-	-	-
32. Ephemeroptera (damaged)	-	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
34. Dasycorixa sp.	-	-	-	-	-	-	-
35. Trichoptera (empty cases)	-	-	-	-	-	-	2
36. Arctopsyche sp.	-	-	-	-	-	-	-
37. Oxyethira sp.	-	-	-	-	-	-	-
38. Clostoeca sp.	-	-	-	-	-	-	-
40. Platycentropus sp.	-	-	-	-	-	-	-
41. Banksiola sp.	-	-	-	-	-	-	-
43. Carabidae	-	-	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
46. Culicoides sp.	-	-	-	-	-	-	-
48. Chironomidae (pupa)	-	-	-	-	-	-	2
49. Chironomidae (damaged)	1	-	1	-	-	-	-
51. Brilla sp.A	-	-	1	-	-	-	-
52. Brilla sp.B	-	-	-	-	-	-	-
54. Cardiocladius sp.A	-	-	-	-	-	-	1
55. Cardiocladius sp.B	-	-	1	-	-	-	-
56. Chironomus sp.	-	-	-	-	-	3	1
58. Corynoneura sp.	-	-	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 07 05

TAXONOMIC GROUP	4	5	6	8	12	13	14
60. Cryptochironomous sp.	-	-	-	-	-	-	1
61. Diplocladius sp.	-	-	-	-	-	-	-
64. Eukiefferiella sp.A	-	-	1	4	-	-	-
65. Eukiefferiella sp.B	-	-	1	-	-	-	-
67. Heterotrissocladius sp.	-	2	3	-	-	2	-
69. Micropsecta sp.	3	-	-	-	10	-	-
70. Orthocladius sp.	-	-	-	-	-	-	-
71. Polypedilum sp.	-	-	-	-	-	-	-
72. Procladius sp.A	-	-	-	-	5	5	2
75. Procladius sp.B	-	-	-	1	-	-	1
77. Psectrocladius sp.A	-	-	-	1	-	-	-
78. Psectrocladius sp.B	-	-	1	-	4	-	1
81. Tanypus sp.(?)	-	-	-	-	-	-	-
83. Tribelos sp.	-	4	2	1	24	-	-
89. Hemerodromia sp.	-	-	-	3	-	-	-
93. Gyraulus (Torquis) sp.	-	-	-	-	-	-	-
94. Hellsoma sp.	2	-	-	-	-	-	-
96. Lymnaea sp.	-	-	-	-	-	3	-
97. Valvata sp.	-	-	-	2	1	5	-
98. Pisidium sp.	-	-	-	-	3	3	-
99. Egg mass (undetermined)	-	-	-	-	-	1	-
COLUMN TOTAL	14	12	12	15	51	31	14
DIVERSITY - H'	0.40	0.44	0.80	0.78	0.67	0.88	0.88
EVENNESS - J'	0.84	0.92	0.95	0.93	0.79	0.98	0.97

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 08 18

TAXONOMIC GROUP	4	5	6	8	12	13	14
1. Hydra sp.	-	-	-	-	-	2	-
2. Nematoda	-	-	-	-	-	-	-
3. Enchytraeidae	-	-	-	-	-	-	-
4. Nais sp.	-	-	-	-	-	-	-
5. Nais behningi	-	-	-	-	-	-	-
7. Stylaria lacustris	-	-	3	1	-	2	-
11. Limnodrilus sp.	-	-	-	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-	-	-	-
15. Rhynchobdellida	-	-	2	-	-	-	-
16. Batrachobdella sp.	-	-	-	-	-	2	-
27. Pleuroxus sp.	-	-	-	20	-	-	-
20. Gammarus lacustris	-	-	-	1	-	-	-
21. Candona sp.	1	-	-	1	-	-	-
24. Limnocythere sp.	-	-	-	1	-	-	-
25. Arachnoidea (juveniles)	9	-	28	1	-	23	-
26. Hygrobates sp.	4	-	-	-	-	-	-
29. Teutonia sp.	2	-	1	-	-	1	-
30. Pteronarcys sp.	-	-	1	-	-	-	-
31. Isogenus (Diploperla) sp.	-	-	-	-	-	-	-
32. Ephemeroptera (damaged)	-	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
34. Dasycorixa sp.	-	-	-	-	-	-	-
35. Trichoptera (empty cases)	-	-	-	-	-	-	-
36. Arctopsyche sp.	-	-	2	-	-	-	-
37. Oxyethira sp.	-	-	1	-	-	-	-
38. Clostoeca sp.	-	-	2	-	-	-	-
40. Platycentropus sp.	-	-	-	-	-	-	-
41. Banksiola sp.	-	-	-	-	-	-	-
43. Carabidae	-	-	-	-	-	-	-
45. Simuliidae	1	-	-	-	-	-	-
46. Culicoides sp.	-	-	-	-	-	-	-
48. Chironomidae (pupa)	-	-	-	-	-	-	-
49. Chironomidae (damaged)	-	-	-	-	-	-	-
51. Brilia sp.A	-	-	-	-	-	1	-
52. Brilia sp.B	-	-	-	-	-	-	-
54. Cardiocladius sp.A	-	-	-	-	-	-	-
55. Cardiocladius sp.B	-	-	-	-	-	-	-
56. Chironomus sp.	1	-	-	-	-	-	-
58. Corynoneura sp.	-	-	-	1	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 08 18

TAXONOMIC GROUP	4	5	6	8	12	13	14
60. Cryptochironomous sp.	-	-	-	-	-	-	-
61. Diplocladius sp.	-	-	-	-	-	-	-
64. Eukiefferiella sp.A	-	-	-	-	-	-	-
65. Eukiefferiella sp.B	-	-	-	-	-	-	-
67. Heterotrissocladius sp.	-	-	-	-	-	-	-
69. Micropsecta sp.	-	-	-	-	-	-	-
70. Orthocladius sp.	-	-	-	1	-	-	-
71. Polypedilum sp.	-	-	-	-	-	-	-
72. Procladius sp.A	-	-	-	2	-	1	-
75. Procladius sp.B	-	-	-	-	-	-	-
77. Psectrocladius sp.A	-	-	-	-	-	-	-
78. Psectrocladius sp.B	-	-	-	-	-	-	-
81. Tanypus sp.(?)	-	-	-	-	-	-	-
83. Tribelos sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-	-
93. Gyraulus (Torquis) sp.	-	-	1	1	-	-	-
94. Helisoma sp.	-	-	-	-	-	-	-
96. Lymnaea sp.	-	-	2	1	-	2	-
97. Valvata sp.	2	-	40	7	-	43	-
98. Pisidium sp.	-	-	1	8	-	-	-
99. Egg mass (undetermined)	-	-	-	-	-	-	-
COLUMN TOTAL	16	0	84	46	0	77	0
DIVERSITY - H'	0.64	0	0.49	0.77	0	0.33	0
EVENNESS - J'	0.91	0	0.49	0.71	0	0.39	0

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 08 29

TAXONOMIC GROUP	4	5	6	8	12	13	14
1. Hydra sp.	-	-	-	-	-	-	-
2. Nematoda	-	-	1	-	-	-	-
3. Enchytraeidae	-	-	-	-	-	-	-
4. Nais sp.	-	-	-	-	-	-	-
5. Nais behningi	-	-	-	-	-	-	-
7. Stylaria lacustris	-	-	-	-	-	-	-
11. Limnodrilus sp.	1	1	1	1	-	-	-
12. Rhyacodrilus sp.	5	13	1	7	-	-	-
15. Rhynchobdellida	-	-	-	-	-	-	-
16. Batrachobdella sp.	-	-	-	-	-	-	-
27. Pleuroxus sp.	-	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	-	11	-
21. Candona sp.	1	-	-	-	12	-	-
24. Limnocythere sp.	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
26. Hygrobates sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	-
30. Pteronarcys sp.	-	-	-	-	-	-	-
31. Isogenus (Diploperla) sp.	-	-	-	-	-	-	-
32. Ephemeroptera (damaged)	-	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
34. Dasycorixa sp.	-	-	-	-	-	-	-
35. Trichoptera (empty cases)	-	-	-	-	-	-	-
36. Arctopsyche sp.	-	-	-	-	-	-	-
37. Oxyethira sp.	-	-	-	-	-	-	-
38. Clostoeca sp.	-	-	-	-	-	-	-
40. Platycentropus sp.	-	-	-	-	-	-	-
41. Banksiola sp.	-	-	-	-	-	-	-
43. Carabidae	-	-	-	-	-	-	-
45. Simuliidae	-	-	-	-	-	-	-
46. Culicoides sp.	4	-	-	-	-	-	-
48. Chironomidae (pupa)	-	-	-	-	-	-	-
49. Chironomidae (damaged)	-	-	-	-	-	-	-
51. Brilla sp.A	-	-	-	-	2	-	-
52. Brilla sp.B	-	-	1	-	-	-	-
54. Cardiocladius sp.A	2	4	7	4	-	-	1
55. Cardiocladius sp.B	-	-	-	-	-	-	-
56. Chironomus sp.	-	-	-	-	-	-	-
58. Corynoneura sp.	-	-	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	1	-	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 08 29

TAXONOMIC GROUP	4	5	6	8	12	13	14
60. Cryptochironomous sp.	1	-	-	-	-	-	-
61. Diplocladius sp.	-	-	3	1	3	-	-
64. Eukiefferiella sp.A	-	-	-	-	-	-	-
65. Eukiefferiella sp.B	-	-	-	-	-	-	-
67. Heterotrissocladius sp.	-	-	-	-	2	-	-
69. Micropsecta sp.	11	-	-	1	1	-	1
70. Orthocladius sp.	-	-	-	-	-	-	-
71. Polypedilum sp.	-	1	1	1	2	-	-
72. Procladius sp.A	-	-	-	-	1	1	-
75. Procladius sp.B	5	2	2	1	2	2	-
77. Psectrocladius sp.A	-	-	1	-	-	-	-
78. Psectrocladius sp.B	4	-	-	-	-	-	-
81. Tanypus sp.(?)	-	-	-	-	1	-	-
83. Tribelos sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	4	-	1
93. Gyraulus (Torquis) sp.	-	-	-	-	-	9	-
94. Hellsoma sp.	-	-	-	-	-	-	-
96. Lymnaea sp.	-	-	-	-	-	8	-
97. Valvata sp.	1	-	-	1	2	5	-
98. Pisidium sp.	9	3	-	5	2	11	-
99. Egg mass (undetermined)	-	-	-	-	-	-	-
COLUMN TOTAL	44	24	18	22	35	47	3
DIVERSITY - H'	0.91	0.78	0.76	0.81	0.94	0.74	0.48
EVENNESS - J'	0.87	1.00	0.84	0.84	0.87	0.96	1.00

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 10 24

TAXONOMIC GROUP	4	5	6	8	12	13	14
1. Hydra sp.	3	-	-	-	-	5	-
2. Nematoda	-	-	-	-	-	-	-
3. Enchytraeidae	-	-	-	-	-	-	-
4. Nais sp.	1	-	-	-	-	-	-
5. Nais behningi	-	-	1	-	-	3	-
7. Stylaria lacustris	-	-	-	-	-	-	-
11. Limnodrilus sp.	1	-	-	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-	-	1	-
15. Rhynchobdellida	-	-	-	-	-	-	-
16. Batrachobdella sp.	2	-	-	-	-	-	-
27. Pleuroxus sp.	-	-	-	-	-	-	-
20. Gammarus lacustris	2	-	-	-	-	-	-
21. Candona sp.	-	-	2	-	-	-	-
24. Limnocythere sp.	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
26. Hygrobates sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	-
30. Pteronarcys sp.	-	-	-	-	-	-	-
31. Isogenus (Diploperla) sp.	-	-	-	-	-	1	-
32. Ephemeroptera (damaged)	-	-	1	-	-	-	-
33. Heptagenia sp.	-	-	3	-	-	1	-
34. Dasycorixa sp.	-	-	8	-	-	-	-
35. Trichoptera (empty cases)	5	-	-	-	-	-	-
36. Arctopsyche sp.	-	-	-	-	-	-	-
37. Oxyethira sp.	1	-	-	-	-	-	-
38. Clostoeca sp.	-	-	-	-	-	-	-
40. Platycentropus sp.	6	-	-	2	-	-	-
41. Banksiola sp.	-	-	-	1	-	-	-
43. Carabidae	-	-	1	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
46. Culicoides sp.	-	-	-	-	-	-	-
48. Chironomidae (pupa)	-	-	-	-	-	-	-
49. Chironomidae (damaged)	-	-	-	-	-	-	-
51. Brilla sp.A	-	-	-	-	-	-	-
52. Brilla sp.B	1	-	-	1	-	1	-
54. Cardiocladius sp.A	-	-	-	-	-	-	-
55. Cardiocladius sp.B	-	-	-	-	-	-	-
56. Chironomus sp.	-	-	-	-	-	-	-
58. Corynoneura sp.	-	-	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1977 10 24

TAXONOMIC GROUP	4	5	6	8	12	13	14
60. Cryptochironomous sp.	-	-	-	-	-	-	-
61. Diplocladius sp.	-	-	-	1	-	-	-
64. Eukiefferiella sp.A	-	-	-	-	-	-	-
65. Eukiefferiella sp.B	-	-	5	-	-	1	-
67. Heterotrissocladius sp.	-	-	11	-	-	2	-
69. Micropsecta sp.	1		-	-	-	-	-
70. Orthocladius sp.	-		-	-	-	-	-
71. Polypedilum sp.	-		-	-	-	-	-
72. Procladius sp.A	5	-	73	6	-	2	-
75. Procladius sp.B	-	-	14	-	-	-	-
77. Psectrocladius sp.A	-	-	-	-	-	-	-
78. Psectrocladius sp.B	-	-	4	-	-	-	-
81. Tanypus sp.(?)	-	-	4	-	-	-	-
83. Tribelos sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-	-
93. Gyraulus (Torquis) sp.	-	-	6	-	-	-	-
94. Helisoma sp.	-	-	-	-	-	-	-
96. Lymnaea sp.	-	-	1	-	-	2	-
97. Valvata sp.	9	-	8	2	-	12	-
98. Pisidium sp.	1	-	-	-	-	-	-
99. Egg mass (undetermined)	-	-	-	-	-	-	-
COLUMN TOTAL	38	0	142	13	0	31	0
DIVERSITY - H'	0.89	0	0.61	0.66	0	0.86	0
EVENNESS - J'	0.85	0	0.59	0.85	0	0.82	0

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 06 29

TAXONOMIC GROUP	13	18	21	22	23	24	25
2. Nematoda	-	-	-	-	-	-	-
3. Enchytraeidae	-	-	-	-	-	-	-
6. Nais (communis?) sp.	-	-	-	-	-	-	-
8. Potamothrix sp?	5	21	2	8	1	-	3
9. Limnodrilus sp?	-	-	-	24	7	2	4
10. Rhyacodrilus sp?	-	-	-	-	-	-	-
11. Limnodrilus sp.	-	-	-	6	-	1	-
12. Rhyacodrilus sp.	-	-	-	-	-	-	-
13. Lumbriculus variegatus	-	-	-	-	-	-	-
14. Stylodrilus sp.	-	-	-	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-	-	-	-
19. Amphipoda (damaged)	-	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	1	-	-
22. Candona sp?	-	-	-	-	-	-	-
23. Cypriconcha sp?	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
27. Limnesia sp?	-	-	-	-	-	-	-
28. Sperchon sp.	-	-	-	-	-	-	-
29. Teutonia sp.	1	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
35. Tricoptera (empty cases)	-	-	-	-	-	-	-
36. Arctopsyche sp.	-	-	-	-	-	-	-
39. Drusinus sp.	-	-	-	-	-	-	-
42. Brychius sp.	-	-	-	-	-	-	-
44. Brachyvatus sp.	-	-	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
47. Palpomyia sp.	-	-	-	-	-	-	-
48. Chironomidae (pupa)	1	1	-	2	2	1	-
49. Chironomidae (damaged)	-	-	-	-	-	-	-
50. Ablabesmyia sp.	13	8	8	-	-	-	1
53. Cardiocladius sp.	-	1	1	-	-	-	-
56. Chironomus sp.	-	-	-	-	-	-	-
57. Constempellina sp.	-	6	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-	-
60. Cryptochironomus sp.	-	-	1	-	-	-	-
62. Endochironomus sp.	-	1	-	1	-	-	-
63. Eukiefferiella sp.	6	21	10	3	2	6	3

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 06 29

TAXONOMIC GROUP	13	18	21	22	23	24	25
66. Glyptotendipes sp.	3	-	-	-	-	-	-
67. Heterotrissocladius sp.	-	-	-	-	-	-	-
68. Metriochemus sp.	-	-	-	-	-	-	-
69. Micropsectra sp.	-	-	-	-	-	-	-
70. Orthocladius sp.	5	-	-	-	-	-	-
71. Polypedilum sp.	5	3	-	-	1	1	-
72. Potthastia sp.	-	-	-	-	-	-	-
73. Procladius sp.	5	2	2	-	-	-	-
76. Psectrocladius sp.	-	-	-	-	-	-	-
79. Stenochironomus sp.	-	-	-	-	-	-	-
80. Stichtichironomus sp.	19	19	-	-	-	-	-
81. Tanypus sp?	-	-	-	-	-	-	-
82. Tanypus sp.	-	-	-	-	-	-	-
83. Tribelos sp.	1	-	-	-	2	-	-
84. Chironominae (undetermined)	-	-	1	-	-	-	-
85. Orthocladiinae (damaged)	-	2	-	8	-	2	-
86. Chelifera (moults)	-	-	-	-	-	-	-
87. Chelifera sp.	-	-	-	-	-	-	-
88. Clinocera sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	1	-	-	-	-	-	-
90. Hydrophorus sp.	-	-	-	-	-	-	-
91. Tipulidae (damaged)	-	-	-	-	-	-	-
92. Tipula sp.	-	-	-	-	-	-	-
94. Hellsoma sp.	-	-	-	-	-	-	-
95. Lymnaea sp? (damaged)	-	-	-	-	-	-	-
96. Lymnaea sp.	1	-	-	-	-	-	-
97. Valvata sp.	9	2	4	4	1	-	1
98. Pisidium sp.	9	6	1	-	-	-	2
99. Undetermined egg masses	-	-	-	-	-	-	-
COLUMN TOTAL	84	93	30	56	20	13	14
DIVERSITY - H'	0.96	0.81	0.68	0.54	0.67	0.32	0.55
EVENNESS - J'	0.86	0.81	0.81	0.89	0.96	0.67	0.92

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14

TAXONOMIC GROUP	1	2	3a	3b	3c	4	6
2. Nematoda	-	-	-	-	-	3	1
3. Enchytraeidae	-	-	-	-	-	-	-
6. Nais (communis?) sp.	-	-	-	-	-	5	-
8. Potamothrix sp?	-	-	-	-	-	-	-
9. Limnodrilus sp?	9	18	4	6	15	10	-
10. Rhyacodrilus sp?	-	3	3	3	5	2	12
11. Limnodrilus sp.	-	-	-	-	1	-	-
12. Rhyacodrilus sp.	-	-	-	-	1	1	-
13. Lumbriculus variegatus	-	-	-	-	-	-	-
14. Stylodrilus sp.	2	-	1	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-	-	1	-
19. Amphipoda (damaged)	-	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	-	-	-
22. Candona sp?	-	-	-	-	-	-	-
23. Cypriconcha sp?	-	1	-	-	1	1	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
27. Limnesia sp?	-	-	-	-	-	-	-
28. Sperchon sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	1
33. Heptagenia sp.	-	-	-	-	-	-	-
35. Tricoptera (empty cases)	-	-	-	-	-	2	-
36. Arctopsyche sp.	-	-	-	-	-	-	-
39. Drusinus sp.	-	-	1	-	1	-	-
42. Brychius sp.	-	-	-	-	-	-	-
44. Brachyvatus sp.	-	-	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
47. Palpomyia sp.	2	5	3	2	6	-	-
48. Chironomidae (pupa)	1	1	-	1	1	-	1
49. Chironomidae (damaged)	-	-	-	-	-	-	-
50. Ablabesmyia sp.	-	-	-	-	-	-	-
53. Cardiocladius sp.	-	-	-	-	1	1	1
56. Chironomus sp.	-	-	-	-	-	-	-
57. Constempellina sp.	-	-	-	-	-	-	4
59. Cricotopus sp.	-	-	-	-	-	-	-
60. Cryptochironomus sp.	-	-	-	-	1	-	-
62. Endochironomus sp.	-	-	-	-	-	-	-
63. Eukiefferiella sp.	-	1	1	1	1	-	2

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14

TAXONOMIC GROUP	1	2	3a	3b	3c	4	6
66. Glyptotendipes sp.	-	-	-	-	-	-	-
67. Heterotrissocladius sp.	-	1	-	-	2	-	-
68. Metriochemus sp.	-	-	-	-	-	-	-
69. Micropsectra sp.	2	56	14	35	31	5	-
70. Orthocladius sp.	-	-	-	-	-	-	-
71. Polypedilum sp.	-	-	-	-	-	-	-
72. Potthastia sp.	1	-	-	-	-	-	-
73. Procladius sp.	-	10	3	-	5	7	-
76. Psectrocladius sp.	-	-	1	-	-	2	24
79. Stenochironomus sp.	-	-	-	-	-	-	-
80. Stichtichironomus sp.	-	-	-	-	-	-	-
81. Tanypus sp?	-	-	-	-	-	-	-
82. Tanypus sp.	-	-	-	-	-	-	-
83. Tribelos sp.	-	3	-	-	1	-	2
84. Chironominae (undetermined)	-	-	-	-	-	-	-
85. Orthocladiinae (damaged)	-	-	-	-	-	-	-
86. Chelifera (moults)	-	-	-	-	-	-	-
87. Chelifera sp.	-	-	-	-	-	-	2
88. Clinocera sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-	-
90. Hydrophorus sp.	1	1	-	-	-	-	-
91. Tipulidae (damaged)	-	-	-	-	-	-	-
92. Tipula sp.	-	4	-	-	-	-	-
94. Hellsoma sp.	-	1	-	-	-	-	-
95. Lymnaea sp? (damaged)	-	-	-	-	-	-	-
96. Lymnaea sp.	-	10	-	1	13	4	-
97. Valvata sp.	-	17	-	3	16	19	3
98. Pisidium sp.	-	3	1	-	-	2	-
99. Undetermined egg masses	-	-	-	-	-	-	-
COLUMN TOTAL	18	135	32	52	102	65	53
DIVERSITY - H'	0.68	0.73	0.64	0.29	0.79	0.78	0.60
EVENNESS - J'	0.97	0.68	0.71	0.41	0.71	0.81	0.66

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	7	8	11a	11b	11c	14
2. Nematoda	-	1	-	-	-	-
3. Enchytraeidae	-	-	-	-	-	-
6. Nais (communis?) sp.	-	-	-	-	1	-
8. Potamothrix sp?	-	-	-	-	-	-
9. Limnodrilus sp?	10	1	1	4	1	1
10. Rhyacodrilus sp?	12	6	2	4	-	1
11. Limnodrilus sp.	-	-	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-	2	-
13. Lumbriculus variegatus	-	-	-	-	-	-
14. Stylodrilus sp.	-	-	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-	-	-
19. Amphipoda (damaged)	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	-	-
22. Candona sp?	-	-	-	-	-	-
23. Cypriconcha sp?	-	-	-	-	-	-
25. Arachnoidae (juveniles)	1	-	-	-	-	-
27. Limnesia sp?	-	-	-	-	-	-
28. Sperchon sp.	-	-	1	1	-	-
29. Teutonia sp.	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-
35. Tricoptera (empty cases)	15	-	-	-	-	-
36. Arctopsyche sp.	-	-	-	-	-	-
39. Drusinus sp.	-	-	-	-	-	-
42. Brychius sp.	-	-	-	-	-	-
44. Brachyvatus sp.	-	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-
47. Palpomyia sp.	-	-	-	-	-	-
48. Chironomidae (pupa)	-	-	-	-	-	2
49. Chironomidae (damaged)	-	5	-	-	-	-
50. Ablabesmyia sp.	-	-	-	-	-	-
53. Cardiocladius sp.	-	2	-	-	-	-
56. Chironomus sp.	-	-	-	-	-	-
57. Constempellina sp.	-	3	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-
60. Cryptochironomus sp.	-	-	-	-	-	-
62. Endochironomus sp.	-	-	-	-	-	-
63. Eukiefferiella sp.	-	1	-	9	1	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	7	8	11a	11b	11c	14
66. Glyptotendipes sp.	-	-	2	-	2	-
67. Heterotrissocladius sp.	-	-	3	14	6	2
68. Metriochemus sp.	-	-	-	-	-	2
69. Micropsectra sp.	-	-	-	-	-	2
70. Orthocladius sp.	-	-	-	-	-	-
71. Polypedilum sp.	-	-	1	-	-	-
72. Potthastia sp.	-	-	-	-	-	-
73. Procladius sp.	-	2	2	7	4	12
76. Psectrocladius sp.	-	1	3	16	2	4
79. Stenochironomus sp.	-	-	-	-	-	-
80. Stichtichironomus sp.	-	3	-	1	-	-
81. Tanypus sp?	-	-	-	-	-	-
82. Tanypus sp.	-	-	-	-	-	-
83. Tribelos sp.	-	-	-	7	1	1
84. Chironominae (undetermined)	-	-	-	-	-	-
85. Orthocladiinae (damaged)	-	-	-	-	-	-
86. Chelifera (moults)	-	5	-	-	-	-
87. Chelifera sp.	-	-	-	-	-	3
88. Clinocera sp.	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-
90. Hydrophorus sp.	-	-	-	-	-	-
91. Tipulidae (damaged)	-	-	-	-	-	-
92. Tipula sp.	-	-	-	-	-	-
94. Hellsoma sp.	-	-	-	-	-	1
95. Lymnaea sp? (damaged)	-	-	-	-	-	-
96. Lymnaea sp.	-	-	-	-	-	-
97. Valvata sp.	6	-	1	12	1	2
98. Pisidium sp.	8	-	-	-	-	1
99. Undetermined egg masses	-	-	-	-	-	2
COLUMN TOTAL	52	30	16	75	21	36
DIVERSITY - H'	0.30	0.74	0.80	0.80	0.86	0.84
EVENNESS - J'	0.62	0.95	0.95	0.89	0.90	0.84

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	13a	13b	13c	13d	17	18	20
2. Nematoda	-	-	-	-	-	2	-
3. Enchytraeidae	-	-	-	-	-	-	-
6. Nais (communis?) sp.	-	-	-	-	-	-	-
8. Potamothrix sp?	-	-	-	-	-	-	-
9. Limnodrilus sp?	-	-	-	-	1	3	1
10. Rhyacodrilus sp?	-	-	1	-	6	111	10
11. Limnodrilus sp.	-	-	-	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-	-	-	-
13. Lumbriculus variegatus	-	-	4	1	-	-	-
14. Stylodrilus sp.	-	-	-	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-	-	-	-
19. Amphipoda (damaged)	1	-	-	-	-	-	-
20. Gammarus lacustris	-	2	12	7	-	-	-
22. Candona sp?	-	-	-	-	-	-	-
23. Cypriconcha sp?	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
27. Limnesia sp?	-	-	-	-	-	-	-
28. Sperchon sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
35. Tricoptera (empty cases)	4	3	5	13	1	4	1
36. Arctopsyche sp.	-	-	-	-	-	-	-
39. Drusinus sp.	-	-	-	-	-	-	-
42. Brychius sp.	-	-	-	-	-	-	-
44. Brachyvatus sp.	-	-	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
47. Palpomyia sp.	-	-	-	-	-	-	-
48. Chironomidae (pupa)	-	-	2	-	-	-	-
49. Chironomidae (damaged)	-	-	-	-	-	-	-
50. Ablabesmyia sp.	-	-	-	-	-	-	-
53. Cardiocladius sp.	-	2	-	-	3	1	1
56. Chironomus sp.	1	2	12	6	-	-	-
57. Constempellina sp.	-	-	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-	-
60. Cryptochironomus sp.	-	-	-	-	-	3	-
62. Endochironomus sp.	-	-	-	-	-	-	-
63. Eukiefferiella sp.	-	-	-	-	1	4	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	13a	13b	13c	13d	17	18	20
66. Glyptotendipes sp.	-	2	-	-	-	-	-
67. Heterotrissocladius sp.	-	-	-	-	-	1	4
68. Metriochemus sp.	-	-	-	-	-	-	-
69. Micropsectra sp.	1	1	1	-	-	2	-
70. Orthocladius sp.	-	-	-	-	-	-	-
71. Polypedilum sp.	-	-	-	-	-	-	-
72. Potthastia sp.	-	-	-	-	-	-	-
73. Procladius sp.	3	1	1	-	4	14	-
76. Psectrocladius sp.	-	-	-	-	4	25	-
79. Stenochironomus sp.	-	-	-	-	-	-	-
80. Stichtichironomus sp.	-	-	-	-	-	-	-
81. Tanypus sp?	-	-	-	-	-	-	-
82. Tanypus sp.	-	-	-	-	-	-	-
83. Tribelos sp.	-	-	2	-	-	6	-
84. Chironominae (undetermined)	-	-	-	-	-	-	-
85. Orthocladiinae (damaged)	-	-	-	-	-	-	-
86. Chelifera (moults)	-	-	-	-	-	-	-
87. Chelifera sp.	-	-	-	-	-	-	-
88. Clinocera sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-	-
90. Hydrophorus sp.	-	-	-	-	-	-	-
91. Tipulidae (damaged)	-	-	-	-	-	1	-
92. Tipula sp.	-	-	-	-	-	-	-
94. Hellsoma sp.	-	1	-	1	-	-	-
95. Lymnaea sp? (damaged)	2	-	-	-	-	-	-
96. Lymnaea sp.	-	5	13	4	-	-	-
97. Valvata sp.	1	7	26	19	-	3	-
98. Pisidium sp.	-	7	19	9	-	1	-
99. Undetermined egg masses	-	-	-	-	-	-	-
COLUMN TOTAL	13	33	98	60	20	181	17
DIVERSITY - H'	0.48	0.89	0.79	0.70	0.56	0.75	0.22
EVENNESS - J'	1.00	0.89	0.83	0.82	0.93	0.75	0.72

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	21a	21b	22a	22b	22c	23a	23b
2. Nematoda	1	1	-	-	-	-	1
3. Enchytraeidae	-	-	-	-	-	-	-
6. Nais (communis?) sp.	-	-	1	-	-	-	1
8. Potamothrix sp?	-	-	-	-	-	-	-
9. Limnodrilus sp?	1	-	50	19	9	4	12
10. Rhyacodrilus sp?	9	36	22	8	2	1	11
11. Limnodrilus sp.	-	-	-	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-	-	-	-
13. Lumbriculus variegatus	-	-	-	-	-	-	-
14. Stylodrilus sp.	-	-	-	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-	-	-	-
19. Amphipoda (damaged)	-	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	-	-	-
22. Candona sp?	-	-	-	-	-	-	-
23. Cyprlconcha sp?	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	1	-	-	-	-	-
27. Limnesia sp?	-	-	-	-	-	-	-
28. Sperchon sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
35. Tricoptera (empty cases)	2	3	11	14	29	-	2
36. Arctopsyche sp.	-	-	-	-	-	-	-
39. Drusinus sp.	-	-	-	-	-	-	-
42. Brychius sp.	-	-	1	-	-	-	-
44. Brachyvatus sp.	-	-	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
47. Palpomyia sp.	-	-	-	-	-	1	-
48. Chironomidae (pupa)	1	2	1	4	-	1	2
49. Chironomidae (damaged)	-	-	-	-	-	-	-
50. Ablabesmyia sp.	-	-	-	-	-	-	-
53. Cardiocladius sp.	1	2	-	-	-	-	1
56. Chironomus sp.	1	4	-	-	-	-	7
57. Constempellina sp.	-	-	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	1	-
60. Cryptochironomus sp.	-	1	1	-	-	-	-
62. Endochironomus sp.	-	-	-	-	-	-	-
63. Eukiefferiella sp.	3	19	1	-	-	7	32

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	21a	21b	22a	22b	22c	23a	23b
66. Glyptotendipes sp.	-	-	-	-	-	-	1
67. Heterotrissocladius sp.	-	-	-	-	-	-	-
68. Metriochemus sp.	-	-	-	-	-	1	-
69. Micropsectra sp.	-	-	-	-	-	1	1
70. Orthocladius sp.	-	-	-	-	-	-	-
71. Polypedilum sp.	-	-	-	-	-	-	-
72. Potthastia sp.	-	-	-	-	-	-	-
73. Procladius sp.	3	13	5	-	2	-	4
76. Psectrocladius sp.	3	14	18	8	3	18	29
79. Stenochironomus sp.	-	-	-	-	-	-	-
80. Stichtichironomus sp.	-	-	-	-	-	-	1
81. Tanypus sp?	-	-	-	-	-	-	-
82. Tanypus sp.	-	-	-	-	-	-	-
83. Tribelos sp.	-	5	23	3	2	-	1
84. Chironominae (undetermined)	-	-	-	-	-	-	-
85. Orthocladiinae (damaged)	-	-	-	-	-	-	-
86. Chelifera (moults)	-	-	-	-	-	-	-
87. Chelifera sp.	-	-	1	-	-	-	-
88. Clinocera sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-	-
90. Hydrophorus sp.	-	-	1	1	-	-	-
91. Tipulidae (damaged)	-	-	-	-	-	-	-
92. Tipula sp.	-	-	3	1	1	-	-
94. Hellsoma sp.	-	-	-	-	-	-	-
95. Lymnaea sp? (damaged)	-	-	-	-	-	-	-
96. Lymnaea sp.	-	-	-	-	-	-	-
97. Valvata sp.	6	14	7	-	-	-	-
98. Pisidium sp.	-	2	7	1	-	-	4
99. Undetermined egg masses	-	-	-	-	-	-	-
COLUMN TOTAL	31	117	153	59	48	35	110
DIVERSITY - H'	0.70	0.82	0.82	0.53	0.57	0.48	0.66
EVENNESS - J'	0.90	0.85	0.76	0.76	0.95	0.62	0.66

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	24a	24b	24c	25
2. Nematoda	-	-	-	-
3. Enchytraeidae	-	-	-	-
6. Nais (communis?) sp.	-	-	-	-
8. Potamothrix sp?	-	-	-	-
9. Limnodrilus sp?	19	20	32	43
10. Rhyacodrilus sp?	-	1	-	-
11. Limnodrilus sp.	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-
13. Lumbriculus variegatus	-	-	-	-
14. Stylodrilus sp.	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-
19. Amphipoda (damaged)	-	-	-	-
20. Gammarus lacustris	-	-	-	-
22. Candona sp?	-	-	-	-
23. Cypriconcha sp?	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-
27. Limnesia sp?	-	-	-	-
28. Sperchon sp.	-	-	-	-
29. Teutonia sp.	-	-	-	-
33. Heptagenia sp.	-	-	-	-
35. Tricoptera (empty cases)	-	-	-	-
36. Arctopsyche sp.	-	-	-	-
39. Drusinus sp.	-	-	-	-
42. Brychius sp.	-	-	-	-
44. Brachyvatus sp.	-	-	-	-
45. Simulidae	-	-	-	-
47. Palpomyia sp.	-	-	-	-
48. Chironomidae (pupa)	1	3	3	3
49. Chironomidae (damaged)	-	-	-	-
50. Ablabesmyia sp.	-	-	-	-
53. Cardiocladius sp.	-	-	-	11
56. Chironomus sp.	1	5	2	14
57. Constempellina sp.	-	-	-	-
59. Cricotopus sp.	3	4	-	-
60. Cryptochironomus sp.	-	-	-	-
62. Endochironomus sp.	-	-	-	-
63. Eukiefferiella sp.	13	10	17	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 08 14 (continued)

TAXONOMIC GROUP	24a	24b	24c	25
66. Glyptotendipes sp.	-	-	-	-
67. Heterotrissocladius sp.	-	7	4	-
68. Metriochemus sp.	-	-	-	-
69. Micropsectra sp.	2	1	-	-
70. Orthocladius sp.	-	-	-	-
71. Polypedilum sp.	-	1	3	2
72. Potthastia sp.	-	-	-	-
73. Procladius sp.	-	3	-	-
76. Psectrocladius sp.	7	33	30	-
79. Stenochironomus sp.	-	-	-	-
80. Stichtichironomus sp.	-	-	-	-
81. Tanypus sp?	-	-	-	-
82. Tanypus sp.	-	-	-	-
83. Tribelos sp.	1	3	1	-
84. Chironominae (undetermined)	-	-	-	-
85. Orthocladiinae (damaged)	-	-	-	-
86. Chelifera (moults)	-	-	-	-
87. Chelifera sp.	-	-	-	-
88. Clinocera sp.	-	-	-	-
89. Hemerodromia sp.	-	-	-	-
90. Hydrophorus sp.	-	-	-	-
91. Tipulidae (damaged)	-	-	-	-
92. Tipula sp.	-	-	-	-
94. Hellsoma sp.	-	-	-	-
95. Lymnaea sp? (damaged)	-	-	-	-
96. Lymnaea sp.	-	-	-	-
97. Valvata sp.	-	1	-	5
98. Pisidium sp.	-	-	-	-
99. Undetermined egg masses	-	-	-	-
COLUMN TOTAL	47	92	92	78
DIVERSITY	0.60	0.73	0.53	0.52
EVENNESS	0.77	0.73	0.69	0.86

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 09 22

TAXONOMIC GROUP	9	13	14	15	16	17	18
2. Nematoda	-	-	-	-	-	4	9
3. Enchytraeidae	-	-	-	-	-	-	-
6. Nais (communis?) sp.	-	-	-	-	1	-	-
8. Potamothrix sp?	-	-	-	-	-	-	-
9. Limnodrilus sp?	-	-	-	3	8	7	3
10. Rhyacodrilus sp?	1	4	-	-	-	7	11
11. Limnodrilus sp.	-	-	-	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-	-	-	-
13. Lumbriculus variegatus	-	-	-	-	-	-	-
14. Stylodrilus sp.	-	-	-	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-	-	-	-
19. Amphipoda (damaged)	-	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	-	-	-
22. Candona sp?	-	-	-	-	-	1	-
23. Cypriconcha sp?	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
27. Limnesia sp?	-	-	-	-	-	-	-
28. Sperchon sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
35. Tricoptera (empty cases)	-	16	-	-	-	2	3
36. Arctopsyche sp.	-	-	-	-	-	-	-
39. Drusinus sp.	-	-	-	-	-	1	-
42. Brychius sp.	-	-	-	-	-	-	-
44. Brachyvatus sp.	-	-	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
47. Palpomyia sp.	-	-	-	-	-	-	1
48. Chironomidae (pupa)	-	-	-	-	-	-	-
49. Chironomidae (damaged)	-	-	2	-	-	-	-
50. Ablabesmyia sp.	-	-	-	-	-	-	-
53. Cardiocladius sp.	-	-	-	-	-	-	-
56. Chironomus sp.	-	4	4	-	-	1	-
57. Constempellina sp.	-	-	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-	-
60. Cryptochironomus sp.	-	-	-	-	-	-	-
62. Endochironomus sp.	-	-	-	-	-	-	-
63. Eukiefferiella sp.	-	3	-	-	-	5	2

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 09 22

TAXONOMIC GROUP	9	13	14	15	16	17	18
66. Glyptotendipes sp.	-	-	-	-	-	-	-
67. Heterotrissocladius sp.	1	-	-	6	12	-	-
68. Metriochemus sp.	-	-	-	-	-	-	-
69. Micropsectra sp.	-	2	-	-	-	-	8
70. Orthocladius sp.	-	-	-	-	-	-	-
71. Polypedilum sp.	-	-	-	-	-	-	-
72. Potthastia sp.	-	-	-	-	-	-	-
73. Procladius sp.	-	8	2	-	-	12	1
76. Psectrocladius sp.	-	-	2	1	-	-	5
79. Stenochironomus sp.	-	-	-	-	-	-	-
80. Stichtichironomus sp.	-	-	-	-	-	-	-
81. Tanypus sp?	-	-	-	-	-	-	-
82. Tanypus sp.	-	-	-	-	-	-	-
83. Tribelos sp.	-	9	-	-	-	-	2
84. Chironominae (undetermined)	-	-	-	-	-	-	-
85. Orthocladiinae (damaged)	-	-	-	-	-	-	-
86. Chelifera (moults)	-	-	-	-	-	-	-
87. Chelifera sp.	-	-	-	-	-	-	-
88. Clinocera sp.	-	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-	-
90. Hydrophorus sp.	-	-	-	-	-	-	-
91. Tipulidae (damaged)	-	-	-	-	-	-	-
92. Tipula sp.	-	-	-	-	-	-	-
94. Hellsoma sp.	-	-	-	-	-	-	-
95. Lymnaea sp? (damaged)	-	-	-	-	-	-	-
96. Lymnaea sp.	-	-	-	-	-	2	-
97. Valvata sp.	-	3	2	-	-	2	-
98. Pisidium sp.	-	1	-	-	-	-	1
99. Undetermined egg masses	-	-	-	-	-	-	-
COLUMN TOTAL	2	50	12	10	21	44	46
DIVERSITY - H'	0.0	0.75	0.58	0.18	0.12	0.59	0.70
EVENNESS - J'	0.0	0.89	0.96	0.59	0.39	0.76	0.83

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 09 22 (continued)

TAXONOMIC GROUP	19	20	21
2. Nematoda	1	-	-
3. Enchytraeidae	-	-	-
6. Nais (communis?) sp.	-	-	-
8. Potamothrix sp?	-	-	-
9. Limnodrilus sp?	2	6	-
10. Rhyacodrilus sp?	7	1	2
11. Limnodrilus sp.	-	-	-
12. Rhyacodrilus sp.	-	-	-
13. Lumbriculus variegatus	-	-	-
14. Stylodrilus sp.	-	-	-
18. Daphnia sp? (juvenile)	-	-	-
19. Amphipoda (damaged)	-	-	-
20. Gammarus lacustris	-	-	-
22. Candona sp?	-	-	-
23. Cypriconcha sp?	-	-	-
25. Arachnoidae (juveniles)	-	-	-
27. Limnesia sp?	-	-	-
28. Sperchon sp.	-	-	-
29. Teutonia sp.	-	-	-
33. Heptagenia sp.	-	-	-
35. Tricoptera (empty cases)	4	-	1
36. Arctopsyche sp.	-	-	-
39. Drusinus sp.	-	-	-
42. Brychius sp.	-	-	-
44. Brachyvatus sp.	-	-	-
45. Simulidae	-	-	-
47. Palpomyia sp.	-	-	-
48. Chironomidae (pupa)	-	-	-
49. Chironomidae (damaged)	-	-	-
50. Ablabesmyia sp.	-	-	-
53. Cardiocladius sp.	-	-	-
56. Chironomus sp.	1	15	-
57. Constempellina sp.	-	-	-
59. Cricotopus sp.	-	2	-
60. Cryptochironomus sp.	-	-	-
62. Endochironomus sp.	-	-	-
63. Eukiefferiella sp.	14	5	-

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 09 22 (continued)

TAXONOMIC GROUP	19	20	21
66. Glyptotendipes sp.	-	-	-
67. Heterotrissocladius sp.	-	-	-
68. Metriochemus sp.	-	-	-
69. Micropsectra sp.	1	4	4
70. Orthocladius sp.	-	-	-
71. Polypedilum sp.	-	-	1
72. Potthastia sp.	-	-	-
73. Procladius sp.	1	3	13
76. Psectrocladius sp.	-	-	-
79. Stenochironomus sp.	-	-	-
80. Stichtichironomus sp.	-	-	-
81. Tanypus sp?	-	1	-
82. Tanypus sp.	-	-	1
83. Tribelos sp.	-	-	-
84. Chironominae (undetermined)	-	-	-
85. Orthocladiinae (damaged)	-	-	-
86. Chelifera (moults)	-	-	-
87. Chelifera sp.	-	-	1
88. Clinocera sp.	-	-	-
89. Hemerodromia sp.	-	-	-
90. Hydrophorus sp.	-	-	-
91. Tipulidae (damaged)	-	-	-
92. Tipula sp.	-	-	-
94. Hellsoma sp.	-	1	-
95. Lymnaea sp? (damaged)	-	-	-
96. Lymnaea sp.	-	-	-
97. Valvata sp.	1	1	3
98. Pisidium sp.	1	2	1
99. Undetermined egg masses	-	-	-
COLUMN TOTAL	33	41	27
DIVERSITY - H'	0.43	0.73	0.62
EVENNESS - J'	0.56	0.80	0.73

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 10 20

TAXONOMIC GROUP	3a	3b	4	6	7a	7b	8
2. Nematoda	-	-	-	1	-	-	-
3. Enchytraeidae	-	-	-	-	-	-	-
6. Nais (communis?) sp.	-	-	-	-	-	-	-
8. Potamothrix sp?	-	-	-	-	-	-	-
9. Limnodrilus sp?	-	6	1	3	-	3	-
10. Rhyacodrilus sp?	-	2	13	9	-	-	3
11. Limnodrilus sp.	-	-	1	-	-	-	-
12. Rhyacodrilus sp.	-	-	-	-	-	-	-
13. Lumbriculus variegatus	-	-	-	-	2	6	-
14. Stylodrilus sp.	-	-	-	-	-	-	-
18. Daphnia sp? (juvenile)	-	-	-	-	-	-	-
19. Amphipoda (damaged)	-	-	-	-	-	-	-
20. Gammarus lacustris	-	-	-	-	-	1	-
22. Candona sp?	-	-	3	-	-	-	-
23. Cypriconcha sp?	-	-	-	-	-	-	-
25. Arachnoidae (juveniles)	-	-	-	-	-	-	-
27. Limnesia sp?	-	-	1	-	-	-	-
28. Sperchon sp.	-	-	-	-	-	-	-
29. Teutonia sp.	-	-	-	-	-	-	-
33. Heptagenia sp.	-	-	-	-	-	-	-
35. Tricoptera (empty cases)	-	1	1	-	3	26	1
36. Arctopsyche sp.	-	-	-	-	-	-	-
39. Drusinus sp.	-	-	-	-	-	-	-
42. Brychius sp.	-	-	-	-	-	-	-
44. Brachyvatus sp.	-	1	-	-	-	-	-
45. Simulidae	-	-	-	-	-	-	-
47. Palpomyia sp.	3	5	-	-	-	-	-
48. Chironomidae (pupa)	-	-	-	-	-	-	-
49. Chironomidae (damaged)	-	-	-	-	-	-	-
50. Ablabesmyia sp.	-	-	-	-	-	-	-
53. Cardiocladius sp.	-	-	9	6	-	-	1
56. Chironomus sp.	-	-	-	-	1	-	2
57. Constempellina sp.	-	-	-	-	-	-	-
59. Cricotopus sp.	-	-	-	-	-	-	-
60. Cryptochironomus sp.	-	1	-	1	-	-	2
62. Endochironomus sp.	-	-	-	-	-	-	-
63. Eukiefferiella sp.	10	2	2	1	-	-	2

APPENDIX III TABLE 4 LAKE LABERGE BOTTOM FAUNA DATA

DATE: 1978 10 20

TAXONOMIC GROUP	3a	3b	4	6	7a	7b	8
66. Glyptotendipes sp.	-	-	-	-	-	-	1
67. Heterotrissocladius sp.	13	-	12	22	-	-	16
68. Metriochemus sp.	-	-	-	-	-	-	-
69. Micropsectra sp.	-	-	3	-	-	-	-
70. Orthocladius sp.	-	-	-	-	-	-	-
71. Polypedilum sp.	8	-	4	-	1	-	-
72. Potthastia sp.	-	-	-	-	-	-	-
73. Procladius sp.	2	3	10	3	2	3	-
76. Psectrocladius sp.	1	-	-	-	1	-	-
79. Stenochironomus sp.	3	-	-	-	-	-	-
80. Stichtichironomus sp.	-	-	34	-	-	-	5
81. Tanypus sp?	-	-	-	-	-	-	-
82. Tanypus sp.	-	-	-	-	-	-	-
83. Tribelos sp.	-	-	2	-	6	12	-
84. Chironominae (undetermined)	-	-	-	-	-	-	-
85. Orthocladiinae (damaged)	-	-	-	-	-	-	-
86. Chelifera (moults)	-	-	-	-	-	-	-
87. Chelifera sp.	1	-	-	-	-	-	-
88. Clinocera sp.	13	-	-	-	-	-	-
89. Hemerodromia sp.	-	-	-	-	-	-	-
90. Hydrophorus sp.	-	-	-	-	-	-	-
91. Tipulidae (damaged)	-	-	-	-	-	-	-
92. Tipula sp.	5	-	-	-	-	-	-
94. Helisoma sp.	-	1	-	-	-	-	-
95. Lymnaea sp? (damaged)	-	-	-	-	-	-	-
96. Lymnaea sp.	2	6	-	-	-	2	-
97. Valvata sp.	1	5	2	-	7	15	1
98. Pisidium sp.	-	1	3	-	10	14	-
99. Undetermined egg masses	-	-	-	-	-	-	-
COLUMN TOTAL	62	34	101	46	33	82	34
DIVERSITY	0.93	0.85	0.81	0.44	0.75	0.72	0.66
EVENNESS	0.86	0.89	0.78	0.63	0.83	0.85	0.73